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THE GARDEN MAGAZINE

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Devoted to Planting and Managing the Grounds About the Home and to the Cultivation of Fruits, Vegetables, and Flowers

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GARDEN

March 1924 *MAGAZINE* *Price, 25 cents*

FEB 27 1924

VOL XXXIX. No. 1

Rockeries

Sweet Peas
Foundation Planting

Dahlias

Doubleday, Page & Company, Garden City, New York *Boston :: Los Angeles :: Chicago*

To Rose Lovers Everywhere!

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Flower Bulb Specialists
Executive Offices
522 FIFTH AVENUE NEW YORK
GUARANTY TRUST CO.

The Garden Magazine. March, 1924. Vol. XXXIX, No. 1. Published monthly by Doubleday, Page & Co., Garden City, N. Y. Subscription price, $3.00 a year.
Entered as second-class matter at Garden City, N. Y., under the Act of Congress, March 3, 1879.

Chrysanthemums and Totty's—a Synonym

A POOR craftsman indeed is he who does not feel reasonably proud of his work. If you can make a better garden, write a better book, or grow a better plant product than the other fellow, you may well glory in the achievement.

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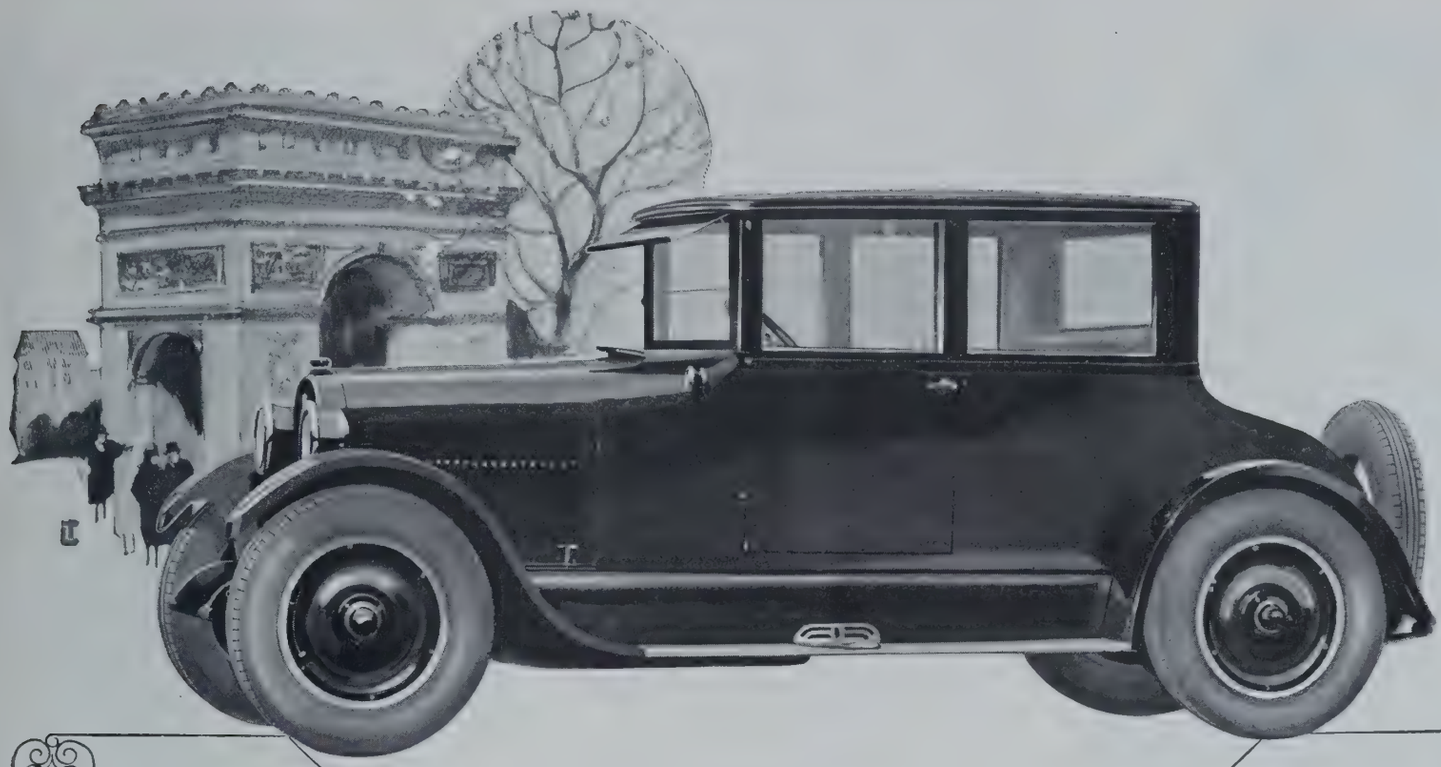

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Collection No. 3 includes 6 of the lovely Maiden-hair Ferns shown above.

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You will find this modest representative of mine to be a messenger of unusual garden lore. Above all, it suggests *naturalistic* gardens—and offers the material with which to create them. Gladly mailed free—a postcard will do.

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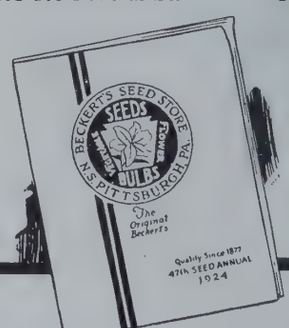

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This durable Star Tag labels each Conard Star Rose in your garden and is the sign of our guarantee.

Roses Like This From Your Own Garden!

WHATEVER your lot in life, roses will make you richer. But you must know them first hand—the health-giving pastime in your garden, the enthusiasm that grows with your growing rose plants, the delight as the dainty buds peep through their green coats; and then—one of the marvels of Nature—the birth and glory of opening roses!

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"Our lives shall not be sweated
from birth until life closes—
Hearts starve as well as bodies;
Give us Bread, but give us Roses."

How well has James Oppenheim thus voiced an universal hunger!

The Conard & Jones Co. deals not only in Rose roots and branches, important as they are as a means to an end. Unless they produce pictures such as human hand never painted, and beauty and fragrance fraught with delight, we fail in our life work.

How much we can help you to steer clear of missteps, and to find that enjoyment which Roses will surely give, you will be better able to judge after reading a little bit of personal history:

Twenty-five years ago, I joined the organization of Alfred F. Conard and Antoine Wintzer at West Grove—considering them the best informed Rose men in America.

First making rose cuttings, my interest soon grew into absorbing *devotion* to the Rose, which has taken me twice through the Rose lands of Europe and on countless American journeys, bringing me in contact with thousands of rose lovers.

Before I was born, these men began their pioneer Rose work. Their first customers were the grandparents of our present customers. Thus two generations of practical Rose experience are back of the Conard Star Roses of to-day.

******Roses of distinction call for a mark of distinction. Perfection in rose stock was so strongly our aim that some years ago we adopted the idea of attaching to each rose plant an identifying star tag bearing our name and the name of the rose.

This little label is left on the growing plant—and thousands of our customers find it a daily convenience in quickly telling the varieties in their gardens.

The label is also constant evidence of the *Conard guarantee.*

Therefore, when you plant roses *start right*—have stock you can *depend on.* It means so much to you in the end—and it costs no more in the beginning.

Robert Pyle

Conard Star Roses are guaranteed to bloom or we refund your money. Sturdy, field-grown plants, each with the Conard guarantee label. Write for 54-page catalogue containing advice on roses for every place and purpose. It's free.

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Lovett's CACO —The acme of perfection in hardy Grapes

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Grapes, sparkling, luscious fruits, holding within their white, purple or wine-red jackets food and flavor beyond compare! As among other fruits, progress has been made in Grapes. No reason, now, for growing the small berried, acid flavored sorts of bygone days. Grape-vines are a great Lovett Specialty and we grow a score or more varieties, all of which are good. But we are tempted to call one *better* than good. That is *Lovett's Caco.*

Lovett's Caco—

A hardy outdoor variety that equals hothouse Grapes

A hybrid of the fine old stand-byes, Catawba and Concord, Caco surpasses both parents in every way. Another season has but increased our respect for the many fine Caco characteristics which may be summarized as follows:—

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Constitution and Yield. A strong, vigorous grower, healthy and prolific of generous crops under widely varying conditions of soil and climate.

Altogether the Ideal Grape for the Home Garden. We offer various size vines, as follows:

One-year vines, each 75c; dozen, $7.50; Two-year vines, each $1.00; dozen, $10.00. Heavy, Fruiting age vines, $2.00 each; $20 per dozen.

Please write for Catalogue No. 110

You'll find it a true and reliable adviser on the question of Small Fruits as well as ornamental Nursery stock. Besides all that is good in Berry plants, Fruit Trees, Vegetable plants, garden roots, etc., its pages abound with suggestions for the making of Rose gardens, old fashioned flower borders, etc. Gladly mailed free on request—a postcard will do—Please write TO-DAY.

Suggestions for a Well-balanced Grape Arbor

Here are 5 sorts which we can highly and conscientiously recommend for Home gardens. They furnish abundant crops *in succession*, so that the gardener may gather grapes over a long period. All of them are of the highest quality.

Lovetts Caco—As described alongside and illustrated above.

Moores Early—The earliest, jet black with purple bloom. Two-year-old vines, each 40c; dozen, $4.00. Fruiting age vines, each 75c; dozen, $7.50.

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Concord—Large black berries of fine appearance. Two-year-old vines, each 25c; dozen, $2.50. Fruiting age vines, each 75c, dozen, $7.50.

Diamond—Reliable greenish white, very juicy. Two-year-old vines, each 50c; dozen $5.00. Fruiting age vines, each $1.00; dozen $10.00.

Offer Extra-ordinary

To acquaint more gardeners with the exceptional character of our extra-heavy, fruiting age grape vines we will supply 2 each of above 5 sterling sorts, ten ready-to-bear, hand picked grape vines, for $10.00. This is absolutely the greatest value in high-class grape vines ever offered.

LOVETT'S NURSERY *Box 125* **Little Silver, New Jersey**

Two Specialties of Merit for Every Home Garden:—

F. A. Howard's Wild Wonder Strawberry

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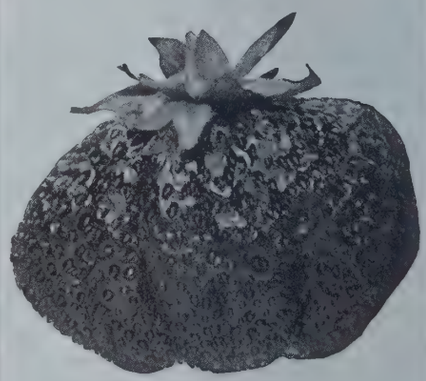

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The Cucumber With a Flavor

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Seeds 25c package prepaid

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So. Easton Massachusetts

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"A Hundred Forms in a Thousand Colors"—how utterly inadequate this phrase is when we consider the individuality of the flower. No two blooms of one and the same variety are alike. It is this individuality that I consider the greatest point of attraction in Dahlias. So that you may understand my enthusiasm in my favorite flower I offer below a few sorts that will introduce you to Dahlias at their best. I'll guarantee that they'll please you. If they fail, write me. I am in business to make friends and to hold them.

J. K. Alexander.

"The Dahlia King"

Take Your Choice From Among These:—

Collection A	Price
Frank A. Walker — Decorative. Lavender-pink.	$ .35
George Walters — Hybrid Cactus. Pink and Gold.	1.00
Madonna — Decorative. White.	.50
Mina Burgle — Decorative. Scarlet.	.50
Tom Lundy — Hybrid Cactus. Dark Red.	1.00
Zeppelin — Peony-flowered. Lavender.	.50

Special Offer: I will supply one each of above six splendid sorts for **$3.00** postpaid.

Collection B	Price
Bianca — Hybrid Cactus. Lavender.	$1.00
Ignea — Cactus. Crimson.	.50
Latona — Peony-flowered. Buff.	1.00
Maiden's Blush — Decorative. Pink and White.	1.50
Pierrot — Cactus. Buff and White.	1.00
Pride of California — Decorative. Dark Crimson.	1.00

Special Offer: I will supply one each of above superb six for **$5.00** postpaid.

Collection C	Price
Glory of New Haven — Decorative. Pink.	$1.50
G. H. Carr — Decorative. Purple.	1.00
Mabel B. Taft — Decorative. Yellow.	1.00
Margaret E. Millis — Hybrid Cactus. Lavender-pink.	2.00
Millionaire — Decorative. Lavender-pink.	1.50
The Grizzly — Decorative. Maroon.	2.00
U. S. A. — Decorative. Orange.	3.00

Special Offer: I will supply one each of above seven extraordinary sorts for **$10.00** postpaid.

Or Make Your Own Selection on This Basis:—

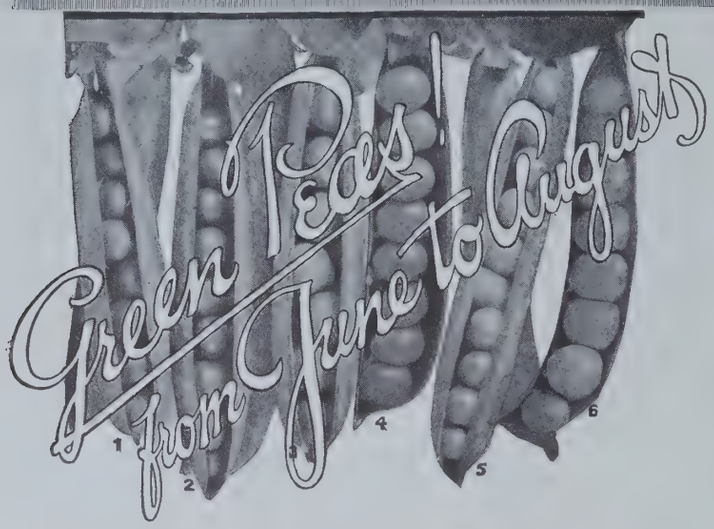
Select any $3.00 value for $2.50; any $6.00 value for $5.00; any $12.00 value for $10.00; or all nineteen varieties described above, plus an extra one of my selection, twenty sure-to-bloom floral marvels for $15.00 postpaid. This offer is made to *Garden Magazine* Readers exclusively, so please mention this advertisement.

My Free Catalogue Will Help The culture directions it brings you represent the sum and substance of a lifetime's experience with and working among the Dahlias. Written so everybody can understand it, and illustrated with true-to-nature pictures from photographs, you'll find it a handy help in your Dahlia growing endeavors. Yours free for the asking—a postcard will do.

J. K. ALEXANDER, ***World's Largest Dahlia Grower***

27-29 Central Street **East Bridgewater, Mass.**

Do You Know This Secret?



Green Peas and Lots of Them

all summer long if you follow these simple directions.

Plant our collection of 6 choice varieties *all at once* this Spring, just as soon as the frost is out of the ground—and they will mature in the order named—producing a steady procession of big mouth-watering crops from about June 20th till late in August.

Remember — *Peas must be planted early*—Late planted peas are always a disappointment because they need the cool, wet weather of Spring to give them a good start. This collection of early and late crop peas insures a bountiful succession of this toothsome delicacy all season.

SPECIAL OFFER—Long Season Collection of Peas

1 Schling's Pedigree, Extra Early. 2½ feet. The earliest.
2 Gradus, or Prosperity. 3 feet. Of delicious flavor.
3 Sutton's Excelsior. 1½ feet. Most productive and very sweet.
4 Dwarf Champion. 2½ feet. Broad pods, very sweet peas.
5 Improved Telephone. 5 feet. Enormous pods, peas of finest quality.
6 Heroine. 4 feet. Deep green, tender peas of finest quality.

½ lb. each of all 6 varieties, 3 lbs. in all..... **$1.75**
1 lb. each of all 6 varieties, 6 lbs. in all..... **2.75**
2 lbs. each of all 6 varieties, 12 lbs. in all..... **5.00**

Delivered **Free** within 300 miles of New York; beyond, add 5 cents per lb. for postage.

Schling's Flower Novelties of 1924

A $7.40 Value for $6.00

Absolutely new! Gems that simply must sparkle in your garden this summer!

Yellow Annual Sweet Alyssum. Low compact, spreading habit. Bears profusely all summer its sweet scented golden-yellow flowers. . . $ .25
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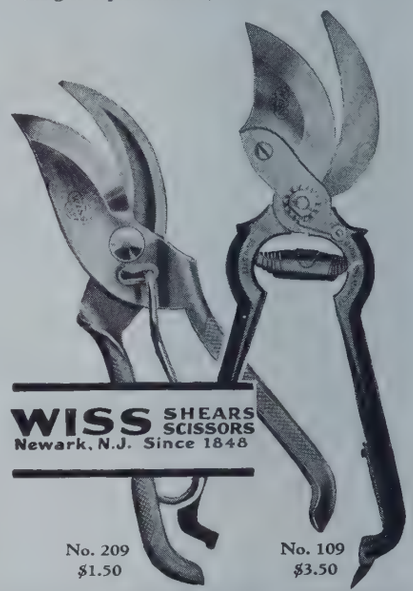

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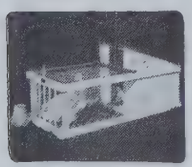
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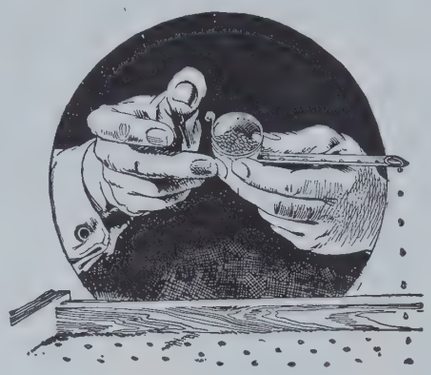

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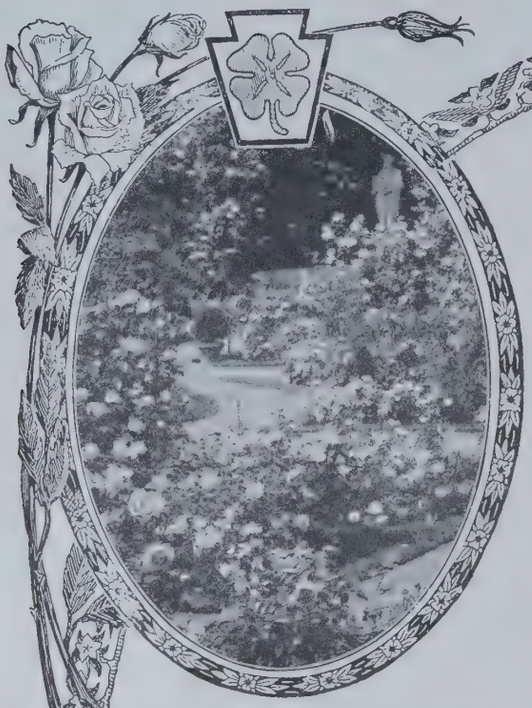

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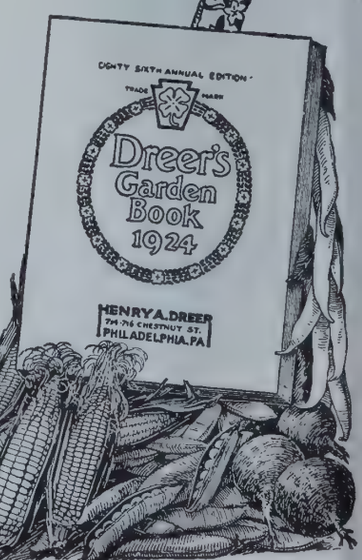

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THE GARDEN MAGAZINE

LEONARD BARRON, *Editor*

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The Garden MAGAZINE

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Mattie Edwards Hewitt, Photo.

"LITTLE HERALDS OF THE SPRING CROCUSES RUN
FLEET-FOOTED THROUGH THE GRASS
SPILLING HOPE FROM GOBLETS GOLD, PALE MAUVE OR CREAM,
AND SINGING AS THEY PASS."

Amer Pindar

CROCUSES AT MRS. AARON WARD'S, ROSLYN, L. I.

Scattered with lavish hand as if nature herself had done the planting, these valiant little flowers come year by year to make March shine with beauty

J. H. Pepper, Photo

"AND WHEN YOU PLANT YOUR ROSE-TREES, PLANT THEM DEEP,
HAVING REGARD TO BUSHES ALL AFLAME."
Violet Sackville-West

ROSE TAUSENDSCHON AT ELIZABETH PARK, HARTFORD, CONN.

Generous in its display of shaded pink bloom and of adaptable disposition, this Climber is one of the favored Roses for all sections of America. (See page 25)

James K. Mills, Photo.

"ENTER, WEE SUNBEAMS; DOFF YOUR GILDED CAPS AND ENTER.
SANDALED WITH SILENCE, COME INTO THIS QUIET PLACE,
WINDOWS, VINE SHADOWED, STAND WIDE OPEN TO ADMIT YOU.
TOUCH THE JEWELLED GLASS OF THEM; SLIDE DOWN THEIR
CURTAINS' LACE."

Violet Alleyn Storey

THE EDDY PLACE AT BROOKFIELD, MASS.

Lilies and Currant companion this venerable doorway in a comfortable friendliness with no hint of austere formality. The garden is shown on pages 38-39 and its present preserver is Mrs. Elizabeth Eddy Norris whose family have enjoyed this old homestead for nearly a century

THE MONTH'S REMINDER—MARCH

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How to Use This Guide. When referring to the time for outdoor work of any sort latitude 40 at sea level (i. e. New York City) in a *normal season* is taken as standard; but at best dates can only be approximate. Roughly, the season advances or recedes fifteen miles a day. Thus Albany, which is one hundred and fifty miles from New York, would be about ten days later, and Philadelphia, which is ninety miles southwest, about a week earlier. Also allow *four* days for each degree of *latitude*, for each five degrees of *longitude*, and for each four hundred feet of *altitude*.

Details of *how to do* each item may be found in the current or back issues of The Garden Magazine—it is manifestly impossible to make each number of the magazine a complete manual of practice. References to back numbers may be looked up in the index to each completed volume (sent gratis upon request); and to further help the reader we have a "Service Department" which will be glad to cite references to any special topic, if asked for by mail, and also to send personal replies to specific questions; a stamped, addressed envelope being enclosed.

SOME mild days are bound to appear in March to lure the ready gardener out-of-doors. Now is the zestful commencement of the new season's activities with its chance to transmute mere paper plans into glowing actualities. No worry or hurry for the forehanded man who goes joyfully to work putting well thought out projects into execution.

Revamping Shrubbery and Border

Clean up the shrubberies, stacking the leaves in a large pile to rot. They will be useful next August for mulching. Burn all other rubbish in a smother fire, and use the ashes for fertilizer.

Loosen the ground among the shrubs with a spading fork. Attend to the climbers round the dwelling, tying up any growths that have fallen out of place during the winter.

Order any other plants of this class that may be needed. Late in the month remove the wind screen, and other temporary protection afforded choice shrubs and evergreens; likewise from Roses, bulbs, and flowerbeds.

As the crowns of the plants show through the ground, do any needed alterations and replanting in the herbaceous border.

Plant deciduous shrubs, and trees.

Trim grass edges as soon as conditions permit.

Apply fertilizer to the lawns, top-dress bad spots, and reseed.

Spraying and Pruning

This is positively the last call for dormant spraying and for pruning. It is of little use to spray and spray again the fruit trees, if near-by ornamental shrubs infested with scale are left untreated.

Prune the late-flowering shrubs but leave alone the early-flowering ones until just *after they have bloomed;* which in a single sentence gives the governing principle for all ornamental flowering shrubs. Early bloomers flower on the wood made last year, late bloomers bear the flowers on new wood of this season.

Prune and tie in all Rambler Roses, but leave Tea Roses until all danger of hard frosts is past—wait until the eyes begin to swell.

For a Full Yield of Berries

Last year's wood of Gooseberries will yield the best fruit; therefore cut out all superfluous shoots, and trim the points only of those that remain. Keep the main shoots six inches apart, and the middle of the bush open. This will let light and air into the plants, and greatly facilitate picking the fruit.

Red-Currants may be "spurred-back" to a couple of buds; with a few shoots left longer for extension, if needed. Merely cut away exhausted branches of Black-Currants and encourage basal growths to take their place. Spur back side shoots that are too numerous.

Get at Raspberries and Blackberries that were not thinned out and headed back after fruiting last fall.

Among the Vegetables

As weather conditions permit uncover the Asparagus and Rhubarb.

Sprinkle salt on the Asparagus bed, also nitrate of soda, using about 1½ lbs. per square rod.

Encourage Rhubarb into growth by placing barrels over the crowns, and banking round the barrels with hot manure.

Dig all Parsnips, and Oyster plants that have been in the ground all winter, and store in a cold cellar.

Whenever possible dig the vegetable patch, and endeavor to get a little deeper than ever before, to break up the hard-pan which cuts off the water supply during the growing season.

As soon as the soil is dry enough to dig without sticking to the tools, plant all of the most hardy vegetables, without regard to the fluctuations of the thermometer. Plant thick and shallow.

Lettuce and Cauliflower pricked-off into frames to mature will be ready for the table some time ahead of outdoor plants. Sow Beans (String) in a frame where they will mature.

Frames in Full Action

The big job is to make up the main batch of hotbeds. Details of procedure appeared in last Month's Reminder.

Air on all favorable occasions frames that have been in use during the winter carrying over plants; protection is still necessary on very cold nights.

Transplant such plants as were started last month. Make sowings of Peppers, Eggplants, Tomatoes, Cucumbers, and Melons.

Sow Annuals as required, such as: Annual Larkspurs, Snapdragon, Drummond Phlox, Pentstemon, Sweet-peas, and Verbenas. These require cool treatment when once started; avoid extremes.

Continue to repair the coldframes, glaze the sash and have ready for pricking-off the young plants as needed.

Deep frames with a northern exposure with 2-3 ft. of head room are useful for keeping bulbs in after the flowers have opened. Lay newspapers over the sash above Tulips on bright days.

Air freely Pansies, English Daisies, and Myosotis wintered in frames, plant out into flowering quarters as soon as conditions warrant.

Set out in the hotbed small plants of Pansies, Myosotis, Phlox, Hardy Poppies, Shasta Daisies, etc., from seed sown in January.

Flower Seeds to Sow in Heat

Sow Primulas for flowering next fall and winter (P. malacoides and its varieties are best sown in June).

Sow Heliotrope and Centaurea gymnocarpa in a temperature of 50° for bedding out in May.

Sow Schizanthus retusus. Transplant to flats, later pot and grow on in a cool temperature, rich soil, and good drainage. Pinch off the flower buds until required to bloom.

Sow Clarkias and grow on to flower in six-inch pots. No pinching is necessary. Pick off dead blossoms and they will continue to bloom well through the summer.

Sow Hunnemannia fumariaefolia in paper pots for summer flowering. Annual Gypsophila can be used in conjunction with almost any other flower for table decorations during the summer months. Make a sowing now in the hotbed for June flowering, again three weeks hence, and so on through the summer to keep up a succession.

SPRING GARDENING UNDER GLASS

[*Full advantage of these directions is only possible with a greenhouse, but so far as opportunity allows they also apply to hotbeds.*]

Pot up early rooted Chrysanthemums. Don't leave them in the sand after the roots are an inch long.

Continue propagation of Chrysanthemums and bedding stock, as cuttings are available.

Complete propagation of Carnations as soon as possible, now that the days are getting brighter, which makes rooting more difficult—make the most of every opportunity to get a "crack of fresh air" on the ventilators. Warm weather brings swarms of thrips. Look out for them, spray and fumigate.

Pot on bedding stock propagated from cuttings last fall and space out on the benches as they show signs of crowding.

Alternantheras may still be rooted in sand. Divide up plants wintered

over in flats; put out in a gentle hotbed, where they will make fine plants for setting out at the end of May.

Root cuttings of Alyssum saxatile. Divide up old plants of Erfordi, Luminosa, and Chatelaine Begonias; repot the pieces, or cut back, and take cuttings from the new basal growths.

Make cuttings from stock plants of Hydrangeas saved for this purpose; or from the basal growths of those being forced into flower at this time. Take cuttings of Marguerites and Heliotrope.

For an Early Supply of Flowers

The important job is to "prick-off" the seedlings that are large enough to handle. Use plenty of leaf mold and sand. Cover the surface of the soil in the flats with a layer of sand; then prick-off the little plants. This carries away the water from around the stems, and to a great extent prevents "damping-off." Give shade until re-established, then exposure to full light and sunshine to ensure sturdy, stocky plants.

Sow Sweet-peas in small pots for planting outdoors next month. Pansies and Forget-me-nots brought in from frames will flower in a temperature of 50°.

Thunbergia is a useful climbing plant. Sow the seeds now. Also seeds of the Castor-bean.

Start fancy-leaved Caladiums for decorative purposes in sandy soil with gentle bottom heat.

Start at intervals small batches of Godfrey Calla, Gloxinias, and the little blue Achimenes, for summer flowering.

Gardenias may still be rooted provided one has plenty of bottom heat. They require a closed propagating case to root well. Pot them rooted, and carry along in pots until they are transferred to the benches where they are to flower. Use light porous soil, with plenty of leaf mold in it.

Start Tuberous Begonias in gentle heat, potted or in flats.

Pot Plants Under Special Supervision

Look over vines, such as Ivies, Vincas, etc., saved from the window boxes and baskets last fall; repot if needed.

Repot Dracaena indivisa that are pot bound; or top-dress.

Early flowering indoor Sweet-peas should have a rich top-dressing of well decayed manure. Acid phosphate and sulphate of ammonia, an ounce to a gallon of water, is a good stimulant, but should be used with care.

A heavy mulching of old cow manure will greatly benefit the Roses planted out in the benches at this time. Don't use fresh horse manure; it will burn. Place a covering of loam over the bare roots before using the manure. Look after the young Roses, use care in watering; and keep them free from black spot. Bank the fire early on sunny days.

Spireas will be showing color in the flower spikes at this time. Space them well apart so that the foliage may develop evenly, and to prevent it damping off as it very readily does when crowded.

Water copiously, but have the foliage dry before night. Place saucers under the pots, and keep these filled with water.

Keep the Rambler Roses growing in a temperature of 60°. Avoid direct draughts of cold air, or mildew will result.

Give Lilies subject to high temperature plenty of water, and feed occasionally with liquid manure. Stake the plants.

Stake up the Snapdragons, and remove side shoots. The side growths make good cuttings. Put them into the propagating bench.

Poinsettias through flowering may be laid on their sides under a bench free from drip, and dried off.

More Fresh Air Needed

Peaches and Nectarines will be in bloom this month. Encourage fertilization by the admission of fresh air and sunshine on every favorable occasion. Tie in the young shoots of early started vines as required.

Maintain a free buoyant atmosphere. Accommodate Primulas, Cinerarias, Cyclamen, and similar flowering plants now in bloom, with a light position on the north side of a cool house.

Give more air as the days become warmer to Bay-trees, Oleanders, specimen Hydrangeas, and similar plants now in storage. As soon as occasion offers place outdoors, give a thorough hosing; retub, or top-dress as required.

Procure Lilium speciosum for summer blooming now, pot into five-or six-inch pots, and grow cool; useful for brightening the show house or conservatory.

At this time of the year bulb stock requires 20–25 days from the time of being brought indoors until flowers open. Double Tulips take a little longer. Figure your supply accordingly.

Cut a few sprays of Forsythia, and Pussy Willow; place in a greenhouse, or warm dwelling for very early blossoming.

SPRAYING IS INSURANCE

TO QUITE a number of people the mere thought of having to use poisonous sprays and other means of controlling insects and fungous diseases awakens the horrible bugaboo of pestilential attacks that destroys all the pleasure of gardening.

Now, as a fact, though there be a great number of devouring hosts it is entirely wrong to consider them as a united, organized band moving their ranks upon the orderly garden. A given kind of plant is prone to the onslaughts of a few individual insects or diseases, any one or two of which may be more or less always present; but it is very unlikely indeed that all the possible pests and parasites will develop simultaneously in an attack at a given point; and so far as the gardener is concerned he really does not have to know very much about the intricate life histories of these invaders. Let it suffice for him to make use of common-sense general methods of protection, remembering the basic principles and using his intelligence.

For fungous diseases, use a preparation containing copper in some form—bordeau for instance. For insects that chew and bite up the tissues the remedy is to cover that tissue with a coating of a stomach poison; thus for caterpillars and the like something in the way of arsenic. And for the other type of pest that sucks the juices out of the plant (lice, scale, etc.), the gardener turns to a method of smothering by oils or extracts, or even a dust; the purpose being in either case to suffocate the invader with a film of oil or coating of powder. The preparation of these things in small quantities for the ordinary individual gardener is more or less messy, although perfectly simple and practical, but there is no necessity to go to this trouble when it is already done for you by manufacturers who put on the market definite preparations which, being sold under governmental inspection for ingredients, etc., can be relied upon.

For a general dormant spray during winter time the gardener turns to lime-sulphur or miscible oils which are sometimes also offered under "brand" names. For use on growing crops in the garden from now on he has a variety of choice among contact insecticides containing either nicotine sulphate or some thing of a like nature which are offered by established manufacturers and have a record of results.

For a general poison spray which works two ways, smothering and poisoning, there are other makes, and for those who wish to make an all-around preparation for home use, prepare standard bordeau and, regarding it as "water," make the standard preparation of an arsenic poison (for instance, lead arsenate), then adding one of the already named contact poisons. It is wise to use all these articles in accordance with the manufacturers' directions on the several packages.

It is good insurance to use the sprays occasionally before the pests are timed to appear so as to welcome them with a hearty meal. Prevention is better than cure.

YOU CAN GROW ROSES IF YOU WILL

M. L. FULLER
Landscape Designer

Governing Factors in Successful Rose Growing Not so Much Climate or Region as Attention to the Few but Insistent Demands of this Queen of June Flowers

EVEN in the trying climate of midsummer in the West and North as well as in the East and on the Coast one may have Roses if one will work. "It is not so much the soil and climate, as the care and skill of the cultivator that wins success." These words of the Reverend Mr. Roberts, ex-president of the National Rose Society of England, have been an inspiration to many who would grow Roses. Experience proves them to be words of wisdom. Success, however, means knowledge of the "how" as well as the disposition to care for and the skill to perform. But the rewards are certain and bounteous—beautiful blossoms from June to October.

The circular rose garden in the illustration was photographed at the end of its first year. With its bordering beds it contains 215 choice Roses. They were planted the last of April in an Illinois garden. In June they were in full bloom. All but five of the plants lived through that season, and the remainder finished their second season without loss. Two other rose gardens were planted that same summer, though on a somewhat smaller scale. In these gardens no plants were lost, though the second summer (that of 1923) was an especially trying season for Roses in this section. The planting and care of these and other gardens, through several years, seems to indicate that there are three mile posts on the road to success in rose gardening.

1. *Making the Rose Bed.* It might not be amiss to emphasize anew the points to be observed, steps to be taken in making a rose bed. Choose a sunny spot that is well drained. Prepare a three-foot excavation, allow six inches at the bottom for broken tile for drainage, as our grandmothers did with their geranium pots; then nine inches of earth, nine inches of well-rotted stable manure, and lastly twelve inches of good black soil. This arrangement gives both drainage and plant food. It is a wise gardener who remembers the old saw, "A Rose likes its face wet but its feet dry." The drainage provides the dry feet.

2. *The Choice of Plants.* For outdoor planting, 2-year field-grown Roses are preferred. The field-grown are hardier and will give quicker and surer results than pot-grown stock. It is also wise to select the hardier types. The "rose record" and the four lists printed herewith, suggest dependable varieties. (See p. 24.)

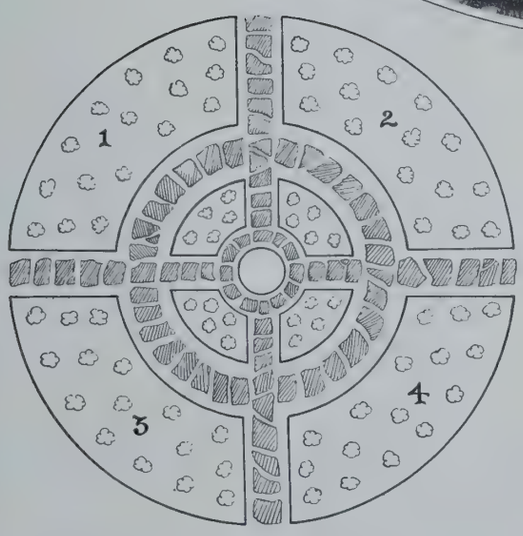
3. *The Later Attention.* In caring for Roses, cultivate often, never allowing the earth to crust; water in the early morning, but not in the sunshine. Keep your insect spray calendar handy and never let the aphis, rose beetle, red spider, mildew or black spot get the start of you. In late November after the Rose plants have been hardened by several freezes, bed them for the winter. Of the various ways of doing this the following has proven very successful. Hill the earth firmly around the Roses up to a height of 6 or 8 inches, but in doing this do not

A FIRST SEASON ROSE GARDEN

Of 215 Roses set out at the end of April in this Illinois garden all but five survived, throve, and by June were in full bloom. The circular Rose garden (see opposite page for plan and details of planting) is in the center of a 54 ft. square formal garden; the perennial flower beds in the four corners have a curving inner edge filled with Polyantha Roses

ROSE TIME ON LONG ISLAND

A certain basic orderliness of plan seems particularly necessary in the planting of Roses, at any rate the bush varieties. Garden of Miss F. A. Mulford at Hempstead, L. I., designed by Miss Ruth Dean



PLAN FOR A CIRCULAR ROSE GARDEN

In this garden (shown on opposite page) the Roses are so arranged that each bed blends into its neighbor and yet there is no monotony of effect. The four small beds around the central sun-dial each contain 5 Red Radiance Roses, the larger outside beds are filled as follows:

1. (Pink) Inner row 4 Paul Neyron (H P); middle row 4 Jonkheer J. L. Mock (H T); outer row 3 Columbia (H T), 4 Radiance (H T). 2. (Pink) Inner row 4 Mrs. John Laing (H P); middle row 4 Los Angeles (H T); outer row 3 Killarney (H T), 4 Ophelia (H T). 3. (White to Yellow) Inner row 2 Frau Karl Druschki (H P), 2 Capt. Christy (H P); middle row 4 Kaiserin Victoria Augusta (H T); outer row 2 Sunburst (H T), 2 Mrs. Aaron Ward (H T), 3 Duchess of Wellington (H T). 4. (Red) Inner row 4 Prince Camille de Rohan (H P); middle row 4 Etoile de France (H T); outer row 3 Gruss an Teplitz (H T), 2 Hoosier Beauty (H T), 2 General McArthur (H T)

dig so as to expose the roots. In the pocket, or hollow created around the plant outside the hilling, place a mat of well-rotted manure. Over this pile a 6 to 12 inch layer of leaves, so that only the tops are exposed. In the spring remove the leaves, and turn the earth back over the manure thus providing added fertility.

A ROSE record compiled from a study of four rose gardens, covering periods up to eight years, gives the following data as to hardiness of variety and abundance of bloom of a selected list of Hybrid-teas. The varieties are named in the order of their performance.

Red

Gruss an Teplitz
Red Radiance
Gen. MacArthur
Etoile de France

Pink

Jonkheer J. L. Mock
Radiance
Killarney
Los Angeles
Mrs. Charles E. Russell
Columbia

Yellow

Sunburst
Mrs. Aaron Ward
Duchess of Wellington

White

Kaiserin Augusta Victoria
Florence Pemberton

Gruss an Teplitz led all others in bloom, often having twenty-five or more blossoms and never being without some flowers. Blossoms were cut from it as late as the end of November; it is not very good for cutting, however, as the petals fall soon.

Red Radiance has been the best all-purpose Rose of the list. While it does not bloom so freely as Gruss an Teplitz, it was never without buds, and these are carried on stems of good length. Its blossoms, when cut, last for several days in the house. Hoosier Beauty is a wonderful red Rose, but is not a certain bloomer, nor as hardy as those listed.

Jonkheer J. L. Mock has wonderful buds on long stems, and is fine for cutting, and very hardy. Given proper care it is practically never without buds, and in June is a generous bearer. Radiance and Mrs. Charles E. Russell are close rivals. Columbia, Los Angeles, and Killarney are fine, but yield fewer blossoms, especially after June. June is, of course, the best month for all varieties.

HYBRID-PERPETUAL ROSES. J. B. Clark (scarlet), Paul Neyron (shaded rose), Mrs. John Laing (pink), Ulrich Brunner (cherry red), Capt. Christy (pale pink), Margaret Dickson (pale pink), Clio (flesh), Frau Karl Druschki (white), Maman Cochet (both pink and white), and Prince Camille de Rohan (dark crimson), are among the best.

POLYANTHA ROSES. These have been a joy, being a continual mass of bloom from early June to killing frost. Echo (pink, a dwarf Tausendschon) Cecile Brunner (rosy pink on cream), Orleans (geranium red, white center), Edith Cavell (scarlet, white eye), and Katharina Zeimet (white), can be absolutely relied upon for both hardiness and bloom.

CLIMBING ROSES. Among the Climbers, aside from Dorothy Perkins (pink), the following are excellent; American Pillar (single, deep pink), Tausendschon (shaded pink), Dr. Van Fleet (flesh pink), Hiawatha (single, crimson), Silver Moon (ivory white), Lady Gay (pink), and Excelsa (clear carmine).

In fact, whatever principal class one prefers, he may have Roses if he will work. They are worth the price—no other flower equals them in color or richness.

To see a well kept rose garden in full bloom, or a rose trellis laden with its wealth of fragrant glowing blossoms swaying in the breeze, is to recall the words of the poet:

Red as the wine of Ages,
Yellow as gold from sunbeams spun,
Pink as the gown of Aurora's pages,
White as the robe of the Sinless One,
Sweet as the winds that from Araby blow,
Roses, roses, I love you so.

Calendar of Sprays and Care of Roses

May 1–15th. When foliage is set, spray with nicotine, Lotol, Aphine or some such preparation, as a preventive of aphis. Spray again in ten days. Watch for aphis on buds, and spray if they appear.

May 20–30th. As buds begin to swell, apply weak manure water to plants. Liquid manure (from a pail half filled with stable manure, balance with water) may be fed the plants every 5 or 6 days from then to early August.

June 5th. Watch for rose beetle and rose slug. Spray three times at intervals of 10 days with arsenate of lead (1 lb. to 10 gallons of water, mixed with 1½ lbs. of soap to make the spray adhere to foliage), Melrosine, OK Plant Spray or other similar preparations.

June 10th. Begin to watch for mildew. Spray with bordeau mixture.

July. Gather all the blossoms you can. It is not good for the plant to have the blooms die on the bushes.

Keep sharp watch for fungous troubles, such as blackspot, or yellow spot. Spray with bordeau and take away from plant or bed all leaves affected with either black or yellow spots. When aphis recurs, use same preparation as in early May.

Prune Roses in April. Put them in their winter bed about Thanksgiving time.

ROSES FOR ALL AMERICA

A Referendum Report on Varieties Conducted by the American Rose Society

IN 1922 a poll was taken among the membership of the American Rose Society on the most favored Roses, bringing a response from over four hundred members. The collated information appeared in the "American Rose Annual" for 1923 from which we now quote:

"It is not too much to say that the conclusions reached are surprising and even astonishing. That there should be such unanimity of opinion; that the favorite Bush and Climbing Roses should be so nearly identical all over America—North, South, East, and West; that the verdict of this great and acute jury should be so definite, is matter for gratification. The dozen favorites among the Bush Roses give any one anywhere a blooming, scented, colorful, dependable assortment with which to lay the foundations, so to speak, of a rose garden. The dozen hardy Climbers provide a reach of vigor and beauty that was unattainable anywhere in the rose world at the beginning of the twentieth century. That there was great opportunity for selection is shown by the fact that in all 287 Bush Roses and 118 Climbers were named in the returns. It was not at all a limited choice these amateurs had, in selecting by majority their "best 40" out of a total of 405 varieties considered. The beginner may begin with confidence and be encouraged toward his own adventuring if he follows these clear indications of the dependable rose way."

FAVORITE BUSH (TEA, HYBRID-TEA, AND HYBRID-PERPETUAL) ROSES

In the New England States (Maine, New Hampshire, Massachusetts, Connecticut, Rhode Island):	In the Middle States (New York, New Jersey, Pennsylvania, Delaware):	In the Central States (Ohio, Indiana, Illinois, Kansas, Missouri, Michigan, Wisconsin, Minnesota, Nebraska, Iowa, South Dakota, Arkansas):	In the Western States (Washington, Oregon, California, Colorado, Utah, Arizona, Wyoming, Idaho):	In the Southern States (Maryland, Dist. Columbia, Virginia, W. Virginia, S. Carolina, Georgia, Florida, Alabama, Texas, Kentucky, Tennessee):
Frau Karl Druschki	Ophelia	Frau Karl Druschki	Ophelia	Radiance
Ophelia	Frau Karl Druschki	Ophelia	Mme. Edouard Herriot	Frau Karl Druschki
Radiance	Radiance	Radiance	Los Angeles	Ophelia
Duchess of Wellington	Duchess of Wellington	Gruss an Teplitz	General MacArthur	Red Radiance
Mrs. Aaron Ward	Mrs. Aaron Ward	Jonkheer J. L. Mock	Frau Karl Druschki	Sunburst
Gruss an Teplitz	Los Angeles	Columbia	Lady Hillingdon	Gruss an Teplitz
Los Angeles	Mme. Edouard Herriot	Mme. Caroline Testout	Mme. Melanie Soupert	Mrs. Aaron Ward
Kaiserin Augusta Victoria	Columbia	General Jacqueminot	Hoosier Beauty	Kaiserin Augusta Victoria
Killarney	Gruss an Teplitz	Los Angeles	Duchess of Wellington	Columbia
Mme. Edouard Herriot	Lady Alice Stanley	Sunburst	Mme. Caroline Testout	Mme. Caroline Testout
Jonkheer J. L. Mock	Killarney	Killarney	Joseph Hill	Lady Hillingdon
Lady Alice Stanley	Red Radiance	Mrs. Aaron Ward	Sunburst	Duchess of Wellington

FAVORITE CLIMBING ROSES

In the New England States:	In the Middle States:	In the Central States:	In the Western States:	In the Southern States:
Dr. W. Van Fleet	Dr. W. Van Fleet	Dr. W. Van Fleet	Dr. W. Van Fleet	Silver Moon
Silver Moon	Silver Moon	Silver Moon	Silver Moon	Dr. W. Van Fleet
American Pillar	American Pillar	American Pillar	Tausendschon	American Pillar
Dorothy Perkins	Pauls Scarlet Climber	Cl. American Beauty	American Pillar	Cl American Beauty
Tausendschon	Dorothy Perkins	Dorothy Perkins	Cl. Mme. Car. Testout	Dorothy Perkins
Pauls Scarlet Climber	Tausendschon	Excelsa	Cl. Cecile Brunner	Pauls Scarlet Climber
Cl. American Beauty	Cl. American Beauty	Tausendschon	Dorothy Perkins	Tausendschon
Excelsa	Gardenia	Pauls Scarlet Climber	Pauls Scarlet Climber	Marechal Niel
Hiawatha	Excelsa	Christine Wright	Mme. Alfred Carriere	Christine Wright
Gardenia	Christine Wright	Hiawatha	Excelsa	Excelsa
Aviateur Bleriot	Hiawatha	Aviateur Bleriot	Cl. American Beauty	Gardenia
Christine Wright	Cl. Lady Ashtown	Gardenia	Marechal Niel	Mrs. Robert Peary

Taken all together, the two lists of chosen sorts for the whole country, together with the vote received by each in the total of 426 votes cast, are as follows:

The "Favorite Dozen" Bush Roses in the United States:

Ophelia, 202; Frau Karl Druschki, 183; Radiance, 163; Los Angeles, 114; Mrs. Aaron Ward, 108; Gruss an Teplitz, 107; Duchess of Wellington, 103; Mme. Edouard Herriot, 82; Columbia, 74; Killarney, 74; Kaiserin Augusta Victoria, 75; Sunburst, 70.

The "Favorite Dozen" Climbing Roses in the United States:

Dr. W. Van Fleet, 262; Silver Moon, 197; American Pillar, 174; Dorothy Perkins, 122; Pauls Scarlet Climber, 107; Climbing American Beauty, 106: Tausendschon, 100; Excelsa, 68; Gardenia, 50; Christine Wright, 46; Hiawatha, 38; Aviateur Bleriot, 23.

As previously suggested, the beginner would not go astray if he planted all of the Roses included in the five lists, as they follow.

All the Varieties Included in the "Favorite Dozen" Bush Roses in the Five Districts of the United States:

Columbia, HT.; Duchess of Wellington, HT.; Frau Karl Druschki, HP.; General Jacqueminot, HP.; General MacArthur, HT.; Gruss an Teplitz, HT.; Hoosier Beauty, HT.; Jonkheer J. L. Mock, HT.; Joseph Hill, HT.; Kaiserin Augusta Victoria, HT.; Killarney, HT.; Lady Alice Stanley, HT.; Lady Hillingdon, T.; Los Angeles, HT.; Mme. Caroline Testout, HT.; Mme. Edouard Herriot, Per.; Mme. Melanie Soupert, HT.; Mrs. Aaron Ward, HT.; Ophelia, HT.; Radiance, HT.; Red Radiance, HT.; Sunburst, HT.

All the Varieties Included in the "Favorite Dozen" Climbing Roses in the Five Districts of the United States:

American Pillar, HW.; Aviateur Bleriot, HW.; Christine Wright, HW.; Cl. American Beauty, HW.; Cl. Cecile Brunner, Mult.; Cl. Lady Ashtown, Cl. HT.; Cl. Mme. Caroline Testout, Cl. HT.; Dorothy Perkins, HW.; Dr. W. Van Fleet, HW.; Excelsa, HW.; Gardenia, HW.; Hiawatha, HW.; Marechal Niel, Nois.; Mme. Alfred Carriere, Nois, Mrs.; Robert Peary, Cl. HT.; Paul's Scarlet Climber, HW.; Silver Moon, HW.; Tausendschon, Mult.

ROSE MARY WALLACE

Introduced in 1924 by the American Rose Society in coöperation with the U. S. Dept. of Agriculture. Hardy Pillar Rose type with semi-double, clear rose-pink flowers about 4 inches in diameter. Originated by Dr. W. Van Fleet. Has come successfully through three winters at New Bedford, Mass.

GROWING SWEET-PEAS OUTDOORS

ANDREW FRANCIS LOCKHART

DESPITE the fact that the Sweet-pea is one of the commonest of the old-fashioned garden flowers, perhaps no other universally grown annual is more often disappointing to the amateur. Innumerable gardeners have given them up in disgust, lamenting the fact that *they* can not grow Sweet-peas while So-and-So seems able to grow them as easily as Dandelions!

The Sweet-pea is exacting, and requires considerable care. Many discover this each summer, and equally many disappointed growers refuse to take a lesson; they refuse to believe that Sweet-pea culture is something more than scraping a shallow drill, putting in the seeds and then leaving the rest to nature. They cannot understand, apparently, just why the new shoots ofttimes gently fold their leaves and gradually die rather than bloom in soil that either is too poor to offer nourishment, or too wet for special comfort.

It is never too early for planting Sweet-peas and in the northern localities where seed was not sown in the fall seize the first day as soon as the soil is dry enough to work and, though there may be a possibility of heavy frosts, work the ground just as soon as the chill is out of it. It is essential that the roots be given ample time to develop before top growth begins. Sweet-peas are deep-rooted plants and in order to provide ample room for the spread of roots the preparation of the soil should be deep and thorough.

In selecting a spot for planting keep in mind the fact that a maximum amount of sunlight is needed to insure the best flowers and though a free circulation of air is beneficial the site should not be swept by strong winds which might tear the vines from their supports. An injury to the main runner will result in smaller flowers for that vine. It will also affect the length of the flower stems.

The Sweet-peas may be planted in rows, running north and south, in order to get a maximum amount of sunlight, or they may be planted in circles. The former is the more practical and the most popular. Almost any garden soil is suitable for Sweet-pea growing, provided there is good fertilization and good drainage. Growers should provide against water standing about the plants in wet weather; the drainage must be complete. Extra care and diligence in the preparation of the soil will reward the grower with larger and more profuse blooms and at the same time insure long stems.

The preparation of the seed bed requires thoroughness to permit of root development. Dig the trench, throwing the upper soil aside, at least one foot deep, pulverizing the bottom with a pick. Fertilization is the next step. It is a good plan to mix in all the fertilizer the soil will stand to insure rapid growth. Mix a good application of stable manure with the subsoil and fill the rest of the trench with the remaining earth liberally fertilized, pressing down firmly as loose soil is a detriment. It is well to let a small ridge remain at the top to permit of the soil settling.

In this ridge make a little furrow, two to four inches deep, for the seeds which should be planted about an inch apart, and the row ridged to permit drainage. Additional watering at the time of planting is unnecessary. Too much water will make unhealthy yellow foliage and thus weaken if not kill the plants. When the seedling stalks are about four inches high, thin to six inches apart—this the gardener usually does reluctantly, hating to pull up perfectly healthy little plants, but such ruthlessness is rewarded by larger, longer-stemmed blooms and a longer blooming period. Crowding the plants reduces their size. Stake the sprouting plants as soon as the first little tendrils appear, using four-inch mesh wire, or twigs from last year's tree pruning. Small twigs should be used at first to afford the tender little plants some protection from beating rains; then after the plant has commenced its rapid growth the runs may be trained on wire mesh or on larger twigs.

Sweet-peas require a great deal of cultivation, and all too many amateurs depend upon artificial sprinkling to provide the necessary moisture. This does not bring the same beneficial result as a frequent stirring of the topsoil with a rake or sharp-toothed cultivator. A dust mulch keeps moisture in the ground and at the same time prevents the cracking of the soil and exposure to the sun of the fine top roots. Frequent surface sprinkling in hot weather only results in the cracking of the surface of a heavy soil. During the blooming season keep the vines clean of withered flowers as allowing them to go to seed shortens the period of bloom considerably.

If your plants are attacked by any of the ordinary nuisances (such as caterpillars, beetles, spiders, and the common green aphis, or sweet-pea louse), these may be overcome with occasional sprayings of a nicotine-sulphate or similar preparation [see page 21] purchasable at any seed store. Apply this poison with a very fine nozzle sprayer, mixing some soap (if not already included in the preparation) with it to insure its sticking to the foliage. Never water the vines in the middle of the day; wait until after sundown and then be careful not to drench them. Spraying to prevent parasites may commence as soon as the plants are from six to eight inches high—or just as soon as the pests are noticed.

SHRUBS THAT BEFRIEND THE HOUSE FRONT

ALICE T. A. QUACKENBUSH

Planting Which Ties Dwelling and Site Together and Makes Your Home a Part of Its Landscape—Shrubs for Four Sides that Will Flourish in Varying Shade and Sunshine

A HOUSE may be surrounded by hills, set among pleasant meadows, even nestled by the sea; yet if it does not have some planting about it to soften the line from its base to the ground, it will be ugly. Planting seems to anchor it to the ground. For example, look at the accompanying illustration of a one-story house which could bear lack of planting better than any other type. See how new and harsh it appears at the base. As a matter of fact, this particular house was new when the picture was taken and the shrubs had just been started. Unfortunately, there are far worse illustrations than this within the vision of most of us: houses two or even three stories high with nothing near them to soften the fact that they were built by man and not by nature. This deplorable condition comes from a lack of understanding. Most people know that there is something wrong with a building which stands out like a sore thumb, yet often they do not realize quite what this is.

The second illustration is the same dwelling at a later date when time has done its pleasant mellowing. How comfortable and home-like it looks; how it seems to grow out of the ground at its feet like a living thing; yet it is the same little shingle bungalow with nothing added save the shrubs.

SO MUCH to stress that shrubs about a building are necessary. Now let us consider what to put there. Their name is legion and naturally may be chosen according to the owner's taste and purse. There are certain essentials, however, which everyone will do well to keep in mind. The most important is location. Unfortunately every side of a house may not face east or even south. North and west must be reckoned with and, in consequence, sunlight and temperature. Take the hardest first—the north. It is hard because planting here is shaded at least half the day and only plants which are to a certain degree shade-enduring will flourish. The Japanese Barberry is about as hardy as any shrub that grows; it requires no attention; will withstand a long period of drought; endures intense cold; has red foliage in fall; in winter a cheerful red berry, not eaten by the birds unless they are driven to it in desperation because of no other suitable food. The blossoms are inconspicuous, though beloved of the bees. Where a house faces the west, or a wider planting is possible, its monotony should be relieved by the intermingling of other shrubs.

A mixed planting of Rhododendron, Deutzia, Forsythia, Golden Privet, and Weigela runs along the northern side of the small bungalow in question and all have flourished.

The Rhododendrons need special care in cold places. They do not shed their leaves although they are apt to freeze and die if fully exposed. Sun exposure after freezing is very hurtful. We tie a burlap bag around the entire plant, which gives protection without excluding the air. The most important fact to understand about this shrub is that it will not live in ordinary garden soil: it must have an "acid" soil. Before placing the burlap, pile leaves to the height of at least a foot about it with branches above to hold them in place—this keeps the soil in a condition suited to the plant's needs. If you have pine needles, so much the better; make a thick layer of these at the bottom. I give all my Heaths—the Rhododendron is one—three doses of epsom salts each year to assure the desired acid

THE TRANSFORMING INFLUENCE OF A FEW WELL-PLACED SHRUBS

The lower picture shows a small one-story house belonging to the author just after shrubs had been set out—to what good effect may be seen in the upper photograph taken after they had grown a bit. Spiraea in flower at either side of the steps flanked by a mixed planting of Deutzia, Forsythia, Golden Privet, and Weigela

DEUTZIA EFFECTIVELY LINKS LAWN AND DWELLING

Justly named gracilis is this species of Deutzia, a native of Japan now gracing American gardens with its long sprays of white bloom thrown lightly out to swing in mild May winds

reaction of the soil: one when the winter covering is removed, another just before they come into bloom, and the last before frost. A large handful to each plant is none too much.

When it comes to planting at the east and south there is a far greater opportunity for selection because the majority of green things like sun and lots of it. Choice depends largely on individual taste and one's pocket-book. You may notice in the illustration (on preceding page) that only one shrub, Spiraea Vanhouttei, is in bloom. This by no means signifies that the others do not blossom, merely that the planting has been so arranged that not all bloom at the same time. In this matter you must make a choice; whether you will have a burst of bloom as if nature had extravagantly poured all the color from her paint-pot—this glory to last for some two weeks; or whether by choosing plants which do not flower at the same time, you will extend the season of color, although of necessity it must be less vivid at any one time. I chose the latter, though this is entirely a matter of personal preference. When your shrubs are established, you will find nooks about them for a few herbaceous perennials; there is no location where they are lovelier, for green is the perfect background.

JUST a word about planting. Someone has said: "Don't dig a hole and throw a plant in it as if it were a dead dog." It is really appalling how many inexperienced persons do about this. Remember that the health and future life of your plant depend on its roots. Give them a chance.

Most nursery stock comes with roots wrapped in a ball of earth. Disturb this as little as possible. Dig a hole at least eighteen inches deep; for large shrubs, two feet; then fill to a foot of the top with well-mixed loam and manure—for the Heath family omit the manure. Pour water into the hole up to the top. When this has sunk in, place the plant in the center so that the top of the ball of earth will be about two inches from the surface. Press firmly in place taking care not to break the roots; cover for about an inch with more of the mixture you have used for the hole. Again fill up the hole with water and allow this to seep thoroughly through the soil. When the water has settled, fill to the brim with more prepared soil and firm down. I find that my feet are the best implements for this last operation. It is not necessary to water again. When shrubs are planted by this method, they are almost sure to live. Of course, when there is a prolonged period of dry weather directly after they are set, they will require extra water. This should be given to the depth of at least a foot, preferably in the evening and with water from which the chill has been removed. Loosen the soil on the surface the following day. Surface watering is of no use whatever.

Most nurserymen state in their catalogues the time of bloom for the stock they offer; also whether it is shade- or sun-loving. If they do not, find out before you buy; it is most important for a successful planting. And while waiting for the shrubs to attain size I fill the spaces between them with Petunias or some other quick-growing showy annuals.

A GOOD WORD FOR A GOOD FRUIT

A. RUTLEDGE

Apricots for the Home Garden—A Luscious and Little Grown Fruit Whose Abundant Pink-White Bloom Leads the Spring Pageant

EDITORS' NOTE: It has been rather the tendency in America to separate the utilitarian from the purely ornamental and to confine most plantings about the house strictly to the latter group of trees and shrubs. More recently and happily, however, we are coming to realize the wisdom and beauty of the European plan of incorporating both elements in the garden landscape. Many nut and fruit trees are intrinsically and arrestingly lovely not alone at flowering time and during fruiting season but always by the very nature of their habit and color and leafage. Into such goodly company as that of the Apple with its air of comforting domesticity, the Pear with its demure queenliness of mien, the Cherry, the Quince, and other established favorites, the Apricot now steps under the sympathetic championship of Mr. Rutledge. A good word on its behalf comes too from Dr. U. P. Hedrick, Vice-Director of the New York Agricultural Station, who is making the study of fruits his life-work: "As an ornamental few trees are handsomer than an Apricot tree with its dark green, luxuriant, heart-shaped leaves and large white blossoms. . . . There is a great field for the development of late-blooming Apricots for America."

IN MANY parts of the North and East, the Apricot, than which there is no more delicious fruit, is ignored almost to the point of extinction. In many communities it is almost unknown. Yet it is almost as easy to grow as the Peach or the Plum; it can be made to attain the size of large Peaches; and the arch-danger from a killing frost in early spring can be controlled to such a degree that yearly crops can be counted upon with fair certainty.

For a good many years I have made it a point to visit in my vicinity all men who had choice Apricot trees, and those who seemed experts in fruiting their trees; and from these and from certain experiences of my own I have gathered a little information that may assist any one who wants this extraordinarily luscious fruit in the home orchard or in the home grounds.

My experience has been that the Apricot requires rather more attention than a Peach. It is, by some, supposed to be a cross between a Peach and a Plum; and if so has inherited the Plum's intolerance of neglect. It will stand rich loamy soil, fertilizers, and, during a midsummer drought, an occasional heavy watering. The best trees I have seen have been boarded in low boxes or frames four feet square, almost flush with the ground; these retain on a level the good soil and fertilizers, and permit of high cultivation immediately about the tree. Heavy mulches of strawy manure are always good, both for winter and summer. To attention of this kind the Apricot quickly responds. In addition to the natural fertilizers from the stable and the chickenhouse, lime will be found good, as it is for all stone-fruits. I have applied as much as 50 pounds of slaked lime to a large Apricot tree, raking it carefully into the top-soil; and the result was most gratifying.

But all the care given will not produce fruit of the finest size; you must have the variety. Here and there are certain trees which bear phenomenal Apricots, almost as large as the finest Peaches; and it pays to get grafts from such a bearer. The most expert Apricot grafter I know—a man who has supplied me with a number of fine trees—tells me that he uses the wild Plum always as the stock. Incidentally, this appears to prove the Apricot's relation to the Plum.

After the best tree is started, there is the enemy of frost to be met. Many growers believe in placing their Apricots on the southern side of a building, a wall, a windbreak,—in fact, in the warmest situation possible so that the blossoms will not be frozen. Others believe that Apricots on the north side of buildings, in full exposure to the cold, will be so retarded in blooming that they will be more likely to hold the crop. I have tried both plans; and I have had more and finer fruit from the northern site. Here, however, to save the blossoms, I built a pile of straw, saturated it with coal-tar, and made it smoulder throughout a cold night. A friend of mine saved his Apricots by hanging four big lighted lanterns in his tree when a freeze threatened. Inasmuch as a cold spell in the spring is not liable to last more than a day or two, a little exertion for a short time will amply repay the grower of Apricots. Some men sink four rails upright about a tree, and to this frame and over it, the whole enclosing the tree, they tack burlap or some such material. This scheme, with a lighted lantern hung within ,is usually frost-proof.

For so fine and delicate a fruit, the Apricot has not many enemies. The plum-curculio attacks it; but that can be controlled in the usual way. The peach-borer sometimes attacks it; but I have Apricots that stood for years near infested Peach trees yet were not so attacked. The new chemical, paradichlorobenzene (See page 83, Oct. 1921, G. M.) lately approved by the Department of Agriculture, will take care of the borers. This season, from an Apricot that had not been shaken for the curculio, I gathered about a bushel of fine fruit; there were not more than a dozen that the curculio had entered.

For the home orchard there is no more delicate and delicious fruit than this; and its sub-acidity renders it especially wholesome. It seems a pity that it is not more generally known and grown. A good variety for sheer quality is Harris and I like Montgamet for both quality and hardiness.

THE amateur who plants the Apricot in a well elevated, sheltered situation, with a northernly slope, and employs "eternal vigilance," will frequently reap a rich reward.

The general care is similar to that of the Peach, but a somewhat stronger, equally well drained soil is needed. A gravelly loam is ideal. The tree is as hardy as the Peach and, under the most favorable conditions, about as productive. Pruning should be rather severe, to let an abundance of sunlight into all parts of the tree. But remember that the fruit is born upon spurs as well as on the last year's wood and the strong young spurs should be spared. Early Moorpark and Moorpark are good standard varieties.—JOHN L. DOAN.

WHEN "LITTLE MOUNTAIN PEOPLE" STEP INTO YOUR GARDEN

LOUISE BEEBE WILDER

Reprinted from Mrs. Wilder's recently published "Adventures In My Garden and Rock Garden"

A ROCK GARDEN it seems to me is a delight that every gardener should strive to bring within his experience. It offers more absorbing interest, more variety, more beauty, greater opportunity for adventure for a lesser outlay of money and trouble than any other type of garden. And it may be equally perfect, complete, and satisfactory, both from a utilitarian and from an artistic standpoint, whether two feet square or covering an acre.

Indeed, size has nothing to do with its beauty or relevancy, nor has the expense, for, while there may assuredly be rock gardens of vast extent, costly to build, to furnish, and to maintain, the councils of perfection may be as truthfully served upon the smallest plot, by one who makes use only of such materials as are at hand, who raises his plants from seed at an infinitesimal cost, or collects them for nothing, and who may give no more than half an hour daily to the care and conduct of the miniature kingdom. As a matter of fact it is in just such small, personally cherished gardens where we far more often find rare and difficult plants well grown and happy than in more ambitious works, where their care is largely delegated to paid guardianship that is so often unsympathetic and lacking in intuitiveness.

And no place is so small or so unpromising but an interesting and efficient rock garden may there be brought into being. Our English gardening brethren inveigh continually and emphatically against the presence of trees in the neighborhood of rock gardens, yet a vast number of American wild flowers grow naturally beneath deciduous trees, and furnished only with these and the many small bulbs that thrive in shady places, a rock garden built in light woodland may be filled with interest for many months of the year, a thing of beauty to rejoice the most exacting eye. And almost any other sort of situation, barring a swamp, may be made to furnish a fitting and comely home for choice rock plants and alpines if knowledge of their desires and necessities guide our contriving.

It is frequently said to me, "We have no suitable place for a rock garden," or, "We have no room for any garden at all." But in point of fact, if you have land at all, you have a place for a rock garden. Naturally some situations are superior to others for the purpose, both as regards their physical and artistic possibilities, but none is hopeless where the will to grow these infinitely fascinating plants strongly animates the grower. Many a plot now deemed too small to compass more than a scrap of lawn and a few Rose bushes or Geraniums might boast a really fine rock garden, displaying hundreds of rare and beautiful plants, well housed and visibly rejoicing. And the owner who now groans under the dull routine of keeping the grass shorn, and shrinks from the horrid task of removing insects from the exacting Queen of Flowers, would find relaxation and unfailing recreation in providing "top hole" service and entertainment for his small and ever-responsive guests from many lands.

THIS misconception of the alpine has been very general in our country, and still is, for the matter of that. Nevertheless, *alpines are for you*, whether you live North or South, East or West, or in the Middle West, as I long ago found they were for me, when I took the trouble to gain some understanding of the characteristics of these little mountain people, and to supply the simple conditions with which all but a few of them are quite satisfied. For years I grew them without a proper rock garden at all, finding suitable homes for them in the crevices of walls and stone steps, along the stone-edged flower borders, and in little prepared beds in the nursery. But while this is quite practicable for a great many kinds, it is much more delightful to give them a home to themselves, where the more difficult kinds as well, may be made snug and safe, and where all show to much greater advantage than when seen in competition with the fat border perennials, whose overfed charms detract from the special quality of clean and sparkling brilliance that characterizes so many of the small mountain plants.

It is well, perhaps, at the outset in thinking of a home for rock plants to discard the term "rockery," as having come, because of countless awful examples disfiguring gardens in past years, to mean primarily a place where rocks are harbored and where plants find their graves. Even the newer term of "rock garden" seems in some danger, alas, of being too literally interpreted, and one sees gardens where the builder has quite patently become so enamoured of his stones as to have lost sight of the fact that they are, or should be, quite secondary in importance to the plants that dwell among them—merely a means to an end and not in themselves, so to speak, the whole show. Though it must be understood that the greater one's appreciation of the inherent beauty of stones, and the more sympathetic the understanding of their place in nature, the more success shall one have in adapting them with truth and sincerity to fashioning a rock garden of real beauty and utility.

A ROCK GARDEN IN THE PRAIRIE REGION

ARTHUR G. ELDREDGE

Emphatic Vindication of the Rock Garden Idea Even for the Arid Stretches of the Interior—Tested Plants that Endure the Glaring Sun

WHETHER the cause is personal indisposition or fear of the baking summer suns in the prairie region, I do not know; but it is well proven that there are many who admire flowers and a good garden *made by someone else!* And certainly the traveler observes that even ordinary perennial and annual gardens are quite the exception, and a rock garden is indeed a rarity in that part of the country.

A few years ago Prof. Dorner, of the University of Illinois, had excavated a six-foot depression through a little prairie swell that lay in front of the Floriculture Building at Urbana. Some small boulders were collected and placed in the slopes, and stone steps made two levels of the garden. Many of the customary rock garden plants were used, and many ordinary perennials added to give seasonal bloom. Shrubs were planted around the

TWO VIEWS OF THE ROCK GARDEN AT THE UNIVERSITY OF ILLINOIS

Where Alpines and natives find comfortable housing under the hot suns of a prairie region, furnishing an appropriate setting for the Floriculture Building and an interesting object lesson to students and visitors of the University at Urbana

top edge to add to the apparent depth as well as break the wind. The garden is not protected by any shade, it lies open to the full heat of the sun.

It was a great success from the first. The solid masses of low growing rock plants forming masses of bloom were a great surprise and entirely strange to most people of this region, and they came by automobile, and on foot to drink in the beauty and to exclaim. The near by perennial garden where groups of related plants are grown in plots, and the formal garden of bedding plants are likewise admired..

These three gardens are a valuable object lesson. They show what may be accomplished with care and a knowledge of plants in this great grain region where economic crops are the dominant thought, and prove that gardens can be kept in bloom through blazing sun of the bravest season.

One does not need to depend entirely on the nurseryman for garden materials. There are native flowers of rare and delicate beauty, some of which are nearing extinction through competition with agriculture. Among these are the Camassia and the Shooting-star, plants worthy of a place in any garden.

People from the country and from other towns come to see these three gardens and it would seem that many must have carried the pictures with them and been stimulated to the point of adding at least a few new flowers to their own door-yards.

Plants That Flourish Under Blazing Sun

[These plants are all being successfully grown in the rock garden at Urbana, Illinois]

Artemisia stelleriana
Alyssum saxatile
Achillea ptarmica Boule de Neige
Arenaria montana
Arabis alpina
Cheddar Pinks
Crocus
Caltha palustris
Columbines
Dicentra formosa
Euphorbia cyparissias
Funkia
Forget-me-not
Gypsophila repens
Gaillardia
Hydrangea arborescens
Iris germanica
Iris sibirica
Iris pseudacorus
Juniperus sabina prostrata
Larkspur
Lysimachia nummularia
Mugho Pine
Narcissus
Nepeta Mussini
Phlox subulata varieties
Privet
Rosa setigera
Saponaria ocymoides
Saxifraga splendens
Sedum acre
Sedum Middendorfianum
Sedum album
Sedum stoloniferum coccineum
Tulips
Thymus serpyllum
Thymus citriodorus
Veronica incana
Veronica rupestris

A MOST EASILY GROWN THREE DOZEN

MONTAGUE FREE
Horticulturist, Brooklyn Botanic Garden

EDITORS' NOTE: In a recent lecture on "Rock Gardens In America" before the Horticultural Society of New York, Mr. Free recommended the following thirty-six as a most amenable and easily grown group of plants and one likely to give the amateur considerable satisfaction without undue fussing. Mr. Free's selection is the result of extended experimentation with alpines and other plants in the rockery at the Brooklyn Botanic Garden—a rockery, by the way, formed entirely of glaciated boulders found in the neighborhood and as such carrying a practical suggestion for gardeners in the regions where similar boulders abound—nature's largess to the maker of rock gardens.

Alyssum saxatile (Goldentuft). Fls. golden yellow; 1 ft.
Anemone pulsatilla (Pasqueflower). Violet fls. covered with long silken hairs.
Aquilegia caerulea (Rocky Mountain Columbine). Blue and white fls.; 1 to 2 ft.
Aquilegia canadensis. Scarlet fls. mixed with yellow; 1 to 2 ft.
Arabis albida flore pleno. Double white fls.; 9 in.
Arenaria, various species.
Aster alpinus. Bright purple, daisy-like flowers.
Aubrietia, in variety. Spreading prostrate plants. Colors rose, lavender, etc.
Campanula carpatica. Porcelain blue fls.; erect on wiry stems.
Campanula garganica. Blue fls.; dwarf, spreading by underground stems.
Campanula pusilla. Pale blue fls.; 4 to 6 in.
Cerastium tomentosum. Creeping species with grey foliage, fls. white; 6 in.
Dianthus, perennial species in variety. (D. neglectus is especially good).
Gypsophila cerastioides. Flowers white, red-veined, creeping habit; 4 in.
Gypsophila repens. Dwarf creeping plant, white fls.; 4 in.
Helianthemum vulgare (Rock-rose) in variety. (Not reliably hardy north of Philadelphia) Dwarf evergreen shrubs; brilliant fls. during summer; 9 to 12 in.
Houstonia caerulea. (Bluets. Quaker Lady.)
Iberis sempervirens (Perennial Candytuft). 9 to 12 in.
Iris cristata. Dwarf Iris with light blue fls.
Leontopodium alpinum (Edelweiss). Whitish floral lvs.; fls. yellow, small; 4 to 12 in.

ROCKERY AT THE BROOKLYN (N. Y.) BOTANIC GARDEN

Myosotis alpestris (Alpine Forget-me-not). Blue with yellow throat; 9 in.
Nierembergia rivularis (Whitecup). White fls., yellow or rosy throat; 3 in.
Phlox divaricata. Lavender blue fls ; 1 ft.
Phlox subulata in variety. Fls. White, pink, etc.
Saponaria ocymoides. Dwarf creeping habit, rose colored fls.; 6 to 9 in.
Saxifraga cochlearis.
Saxifraga cotyledon.
Saxifraga, mossy varieties. White, pink fls.
Saxifraga Macnabiana (Pictured on page 25, Sept., 1923, G. M.)
Sedum, dwarf varieties. Various colors; 3 to 12 in.
Sempervivum, in variety. Red and yellow fls.,; 6 to 12 in.
Silene alpestris. Blooms in spring; white fls; 4 to 6 in.
Silene schafta. Blooms in fall. pink flowers. 4 to 6 in.
Statice armeria Laucheana. More brightly colored than the common Thrift.
Trollius laxus (Globeflower). Yellow or orange; 1 to 2 ft.
Viola cornuta. Blooms throughout summer; blue flowers; 6 to 9 in.

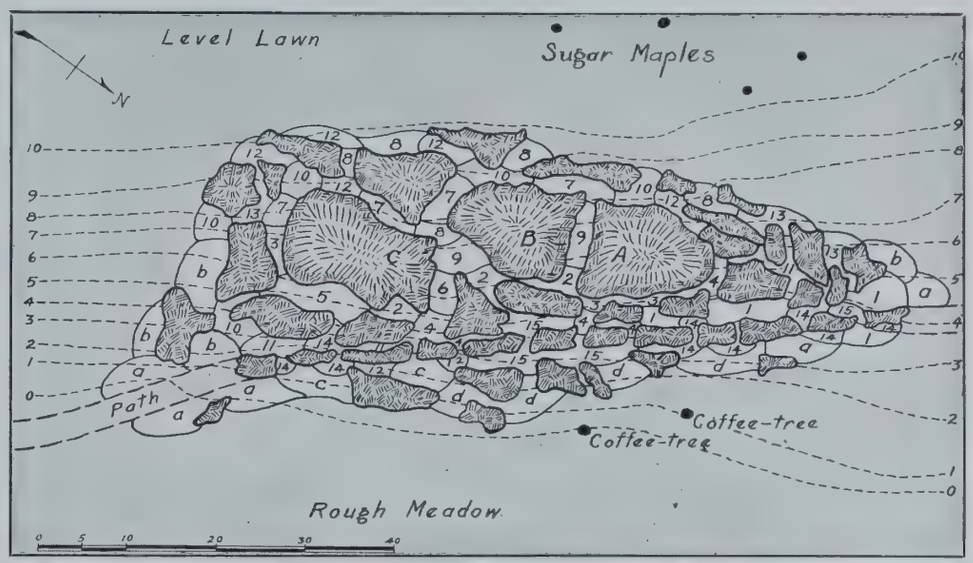
ROCK GARDENS NATURAL AND NATURALISTIC

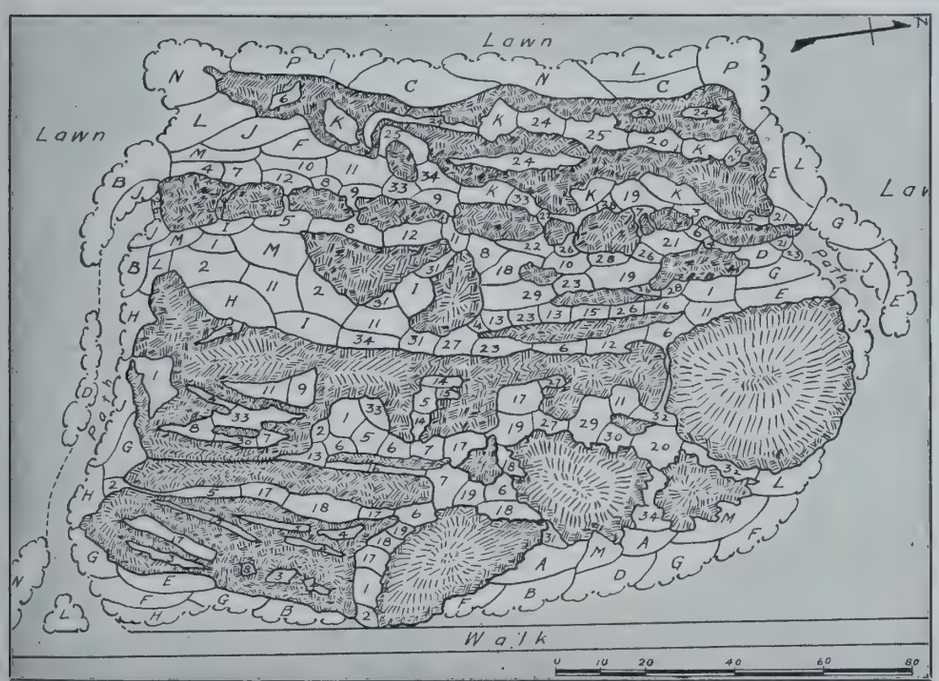
STEPHEN F. HAMBLIN

Instructor at the School of Landscape Architecture and Director of the Botanic Garden of Harvard University

IN CREATING a rock garden that is largely or wholly artificial very great skill is necessary to make it blend into its setting and appear part of the natural soil formation. The upper of the two accompanying plans shows the construction and planting of such a garden where three big boulders (marked A, B, and C) form a ready-made nucleus on a rather steep bank of good loamy earth sloping to the northeast. Additional stones and rocks are laid as indicated by the cross-hatched areas, each set deeply enough to prevent sliding and no two upon each other, the niches between being filled with gritty soil. The path is made of flat stones giving the illusion of a real ledge lying beneath, and enlivened with Thyme and dwarf Speedwells so planted that they may be stepped over easily.

In this naturalistic garden, shaded most of the afternoon by near-by trees, shrubs of a dense dwarf spreading nature are put principally along the path to mark it plainly and guide the feet aright. These shrubs hold their foliage the year through and the herbs used are also mostly of an evergreen to be stepped across easily. Gritty soil fills in hollows and crevices and as only plants with iron-clad constitutions thrive in such an exposure, the succulents and other desert lovers are the main feature, especially the great tribe of Sedums and their relatives.





Naturalistic Rock Garden

Each letter or number on the above plan means a group of ten or more plants as listed below

Shrubs

a. Prostrate Savin Juniper
b. Small-leaved Rosebox
c. Hairy Rosebay
d. Heather

Herbs

1. Heart-leaved Rockfoil
2. Maiden Pink
3. Rock Soapwort
4. Thrift
5. White Stonecrop
6. Creeping Stonecrop
7. Carpathian Harebell
8. Bluebell
9. Tufted Harebell
10. Wild Sweet-William
11. Rock Speedwell
12. Hoary Speedwell
13. Saxifrage Pink
14. Mother-of-Thyme
15. Horned Violet

Natural Rock Garden

Each letter on plan shown at left means a group of several shrubs as listed below; each number indicates a dozen or more herbs

Shrubs

A. Common Juniper
B. Prostrate Savin Juniper
C. Bearberry
D. Spreading Rosebox
E. Chinese Barberry
F. Box-leaved Barberry
G. Small-leaved Barberry
H. Wilsons Barberry
I. Buckleys St. Johnswort
J. Southernwood
K. Alberts Honeysuckle
L. Dwarf Japanese Quince
M. Dwarf Siberian Pea
N. Single White Scotch Rose
P. Bristly Rose

Herbs

1. Evergreen Spurge
2. Rocky Mountain Threadlily
3. Wallpepper
4. Creeping Stonecrop
5. Pink-flowered Stonecrop
6. Mossy Stonecrop
7. Orange Stonecrop
8. White Stonecrop
9. Yellow-flowered Stonecrop
10. Dwarf Yellow Stonecrop
11. Showy Stonecrop
12. Japanese Stonecrop
13. Hen-and-Chickens
14. Spiderweb Houseleek
15. Globular Houseleek
16. California Houseleek
17. Indian Fig
18. Western Pricklypear
19. Pricklypear
20. Dwarf Rockcress
21. Mother-of-Thyme
22. Woolly Thyme
23. Mountain Thyme
24. Early Saxifrage
25. Saxifrage Pink
26. Sandwort
27. Yellow Whitlow Grass
28. White Whitlow Grass
29. Woolly Chickweed
30. Rupture Wort
31. Caroline Phlox
32. Heath-leaved Aster
33. Creeping Chalkplant
34. Woolly Yarrow

character. Blue is the prevailing color of bloom with white and pink for contrast. As nearly all this planting is on a considerable slope, the herbs of a creeping and drooping nature are selected and so set as to hang down over the rock faces in sheets of foliage.

The construction and planting of a garden like this can be finished by two men in three days if the soil works readily—by no means a prohibitive undertaking for even the small scale gardener.

Where there is a natural ledge of rock out-crop near a lawn area the problem of construction is reduced to a minimum and very charming effects may be quickly won. In the lower plan the natural rock face is represented by the cross-hatch, the varying length of line roughly suggesting the actual elevation of the larger rocks. The land here slopes toward the north and east, one edge of the rockery being but little above the surrounding lawn, the other quite rugged. The whole region is fully exposed to the sun all day long. The only stones added are a few of similar formation to complete the walk where spaces are too wide

GARDEN OF MR. CHAS.. T. CROCKER AT FITCHBURG, MASS.

"SATIN ROSES CLEAN AND NEW"

LOUISE DRISCOLL

I know a wall where
The rose wave breaks
And fine bloom scatters
Like foam and makes

High holiday as
The bees come by
And the blue winged moth
And the dragonfly.

I know a garden
Sheltered, green,
Where all the joys of
The year are seen,

From frail crocus
As seasons go
To the last herb
That greets the snow.

But I love it best
With morning dew
On satin roses
Clean and new.

A TRIO OF SWEET-SCENTED ROSES

B. Y. MORRISON

Reminiscent of the Oldentime Gardens of Fragrance, These New Musk Roses Come with the Double Appeal of Intrinsic Charm and a Sentimental Heritage

EDITORS' NOTE. Though less obvious and infinitely more subtle than sight or sound or touch, the sense of smell is none the less potent and all of us have experienced at some time or other the power of a perfume to revivify lost or drowned memories to sudden, startling life. Nature has distributed her gifts with a wise impartiality in the kingdom of flowers as in the kingdom of men, and it is seldom that one plant preëmpts all desirable qualities. The Dahlia, for instance, attracts a wide attention nowadays by its brilliant range of color despite a lack of grace and gentleness, whereas the Daphne, the Arbutus, and kindred lowly garden folk irresistibly draw and hold the heart by their persuasive aroma, redeeming inconspicuousness by virtue of their scent. Incidentally, the potency of perfume was a subject of special interest to Lafcadio Hearn who seems to have been endowed with particularly keen olfactory perceptions, perhaps by way of compensation for a subnormal vision; and in an editorial written by him for the New Orleans *Item* (August 12, 1878) appears this interesting statement: "It has been averred by scientists that the human senses are by no means developed to their full extent; that, in fact, some of them have developed appreciably within the last two thousand years. It has been claimed that the Greeks of the Homeric period had no idea of the color blue."

THOUGH the Musk Rose has been in gardens since the early part of the nineteenth century, it is far from common now. It is really a semi-climbing Rose of wide-spreading, bushy habit; but it makes canes so strong that it can be trained as a climber, or as a pillar Rose. A casual inspection might suggest the common forms of Rosa multiflora, but it is not so hardy as that species and shows some tendency to summer bloom. The delicious perfume, which is its most arresting characteristic, is similar to that of the old pink and white Ramblers but is even sweeter and more pervasive. Like Rosa multiflora it bears foliage that is not so fine as that of Rosa wichuraiana, with the result that its hybrids have disappeared from gardens before the increasing numbers of Hybrid-wichuraiana varieties with their glossy foliage and greater hardiness.

Many years ago John Champney of Charleston, S. C., combined it with a blush colored China Rose and from that seedling Philippe Noisette in France produced the first of the series of Roses that make the Noisette race, valuable for the South, as is well known, but of little use to gardeners who live where the winter climate is at all severe. Although other varieties have originated since that time, but few have caught the public fancy, because of this lack of hardiness, undoubtedly.

In recent years, a well known rosarian in England, the Rev. Joseph Pemberton, has been producing many charming hybrids of the old Musk Rose, some of which certainly deserve the attention of the American Rose amateur. Three of these have taken my fancy.

DANÄE was the first one known to me. It forms large spreading bushes of fairly open habit, with small clusters of loosely formed flowers at the end of every twig and branch. The buds are very hard and tight and of a deep orange color which fades to a tinted ivory white as the flower opens. The foliage is excellent and lasts well through the summer. The flowering is continuous and while the June bloom is the best, the other flowers are good. There is a faint but very sweet perfume.

THISBE is a later introduction with distinctly climbing habit if grown in deep clay soils. In light sandy soil it makes rather irregular and straggling bushes which do not compare with those from the heavier soil. Its first bloom comes with the last of the Tall Bearded Iris and its pervasive and heavy scent mingling with the fragrance of the Iris of trojana lineage is ravishingly sweet. The foliage is rough, but a good green, and lasts well through the entire summer. It is free from mildew and spot. The flowers are small, as in Danäe, and are of rather similar coloring. In dull or rainy weather, however, it keeps its deep orange color when fully expanded, but as we rarely have such weather in Rose

TWO OF THE NEWER MUSK ROSES

Thisbe (shown just above, ⅔ natural size) begins to bloom about the time of the last Tall Bearded Iris; its buds are deep orange and ravishingly sweet. Pax (in oval, ½ natural size) is less fragrant but makes up for this lack by its lusty growth and beauty of foliage, bearing its long, slender, lemon-white buds not in clusters as do the other varieties, but on long stems like those of the Hybrid-tea

season, the garden sees it commonly as a cream-white pillar Rose.

Pax, the last of the trio, is quite different from the others and appears to show more of the influence of its other parent. Like Thisbe, it grows best on heavy soil and makes magnificent ten-foot canes with large red thorns and the most beautiful bronze green foliage, foliage as fine as that of Zepherine Drouhin, another neglected Climber. The foliage is mildew proof and has shown no spot so far. The flowers are borne in two types of clusters, those from the laterals on the old canes may have as many as five blooms though the blossoms are more often in threes, but the clusters which crown the shorter canes rising from the crown of the plant in spring are widely branched and often have as many as twenty large flowers.

Unlike the other varieties, where the flowers are close together in the heads, the individual blooms of Pax have long stems similar to those of Hybrid-teas. The buds are long and slender and of a delicate lemon white color. They open into rather flat white flowers something like those of Silver Moon but of rather warmer coloring as the bases of the stamens are tinted with a reddish color, a very minor detail but one which makes an appreciable difference in the effect. The one regret in praising this Rose is that it lacks a fine fragrance—the scent is there but it is very faint and does not fill the air as with Thisbe.

At the time of writing, October first, 1923, both Pax and Thisbe bore another crop of buds to mature before frost put an end to the year's bloom.

TWO TRAILING ROSES OF MERIT

W. C. EGAN

Warranted to Withstand the Rigors of Illinois Winters Along the Shore of Lake Michigan

ANY Rose of merit that will stand the rigors of a Highland Park winter is a welcome addition to our gardens. The great majority of people will not, or cannot afford the proper winter protection to the tender varieties, and must therefore depend upon those that possess an ironclad constitution. Rosa rugosa and its hybrids give us a hardy "bush" form, as do the old-fashioned June Roses, the Northern Cherokee (Rosa altaica), and the new Chinese Rosa Hugonis.

We have no really hardy climbers or trailing Roses that will stand the Egandale winters—Tausendschon, Dorothy Perkins, and Paul's Scarlet Climber will stand most winters if grown farther back from the influence of Lake Michigan. Rosa wichuraiana stands some winters here.

The new trailing Rose Max Graf, a chance seedling appearing in a Connecticut nursery is a Rose of merit and one that will in time be used extensively in landscape work. It is a handsome Rose, in or out of bloom, for its glossy foliage is free from mildew, black-spot, or insect attack. It blooms in clusters—three to nine buds in a cluster, opening successionally, thus giving a long season of bloom. The flowers are single, $2\frac{3}{4}$ inches in diameter, a bright pink with yellow stamens. It is an ideal Rose for planting on banks or hanging down over a wall.

IN 1888, Jackson Dawson of the Arnold Arboretum, commenced the hybridization of hardy Roses, using principally Rosa rugosa and R. wichuraiana in connection with the Hybrid-Perpetual General Jacqueminot. The latter seems to have been a favorite with others also as a parent plant, being one of the hardiest of its class and generally transmitting its exquisite color and its fragrance. Prof. Budd's Rose N. E. Hanson, and Dawson's Arnold came from this cross. In 1900 Dawson produced Lady Duncan. It is a spreading semi-pendent plant possessing attractive, glistening foliage and bearing flowers somewhat similar to the pink of Max Graf. Dawson sent me a plant before he named it. Understanding it to be of a pendent nature I thought I would give it something to droop over—and constructed a hoop held up by four legs standing about three feet high, but in a year or so I saw that it did not like the arrangement and, unharnessing it, allowed it to proceed at its own sweet will. It commenced to improve at once and now is some twelve feet in diameter.

Why the name Lady Duncan, one suggesting an English origin, was given to a Rose of American creation and of Japanese parentage was always a puzzle to me. I sought information from Prof. Charles S. Sargent who kindly gave it. It appears that Dawson lived for several years as gardener with the Dove family of Andover, Mass. One of the daughters married a Scotchman named Duncan who was the younger son of a man in the peerage. Later the father and elder brother of this man died and he succeeded to a title. Dawson called the Rose Lady Duncan although the lady herself never was such, as she died before the succession.

AS THE ROSE LADY DUNCAN GROWS AT EGANDALE

Twelve feet in diameter, this trailing Rose successfully withstands the rigors of Illinois winters and throws abundant pink bloom season after season; photographed at Mr. Egan's home in June of 1923

CRISP CELERY FROM JULY TILL SPRING

F. C. GAYLORD

Producing 150 Bunches in a Single 40 ft. Row in the Home Garden

CELERY is easily grown and lends itself well to the small home garden as it stands close planting and an abundance can be grown upon a very small space. During the past summer, a single 40-foot row produced 150 crisp, juicy, white bunches. By repeated plantings from early to late this crop amply responds to care, lasting from July until spring time, a pleasant, continual reminder of the joy of the garden season.

Success with Celery requires rich loose soil and plenty of water. These requirements do not need to handicap any real gardener as any soil can be made Celery soil. This is best accomplished by adding well-rotted stable manure at the rate of a two-horse load to each hundred square feet of garden space. Don't be afraid of getting the soil too rich. Apply the manure any time during the winter but work it into the top ten inches of earth in the early spring.

For the earliest Celery start the plants in a hotbed or greenhouse. This is best done by filling a flat or shallow box first full of coarse dirt and then sifting on top an inch of leaf-mold or woods' dirt. Sow seed thinly over this, cover lightly, and place in a warm, lighted place. Water thoroughly and put a newspaper over the top of the flat or box until the seeds begin to germinate, when it is removed. For the very earliest crop the Celery may be grown on under glass in a hotbed or coldframe, transplanting the seedlings six inches apart each way. When the weather warms the glass is removed.

Celery plants for the mid-summer crop are best started in the flats and then transplanted in May into heavily manured and fertilized soil; set four inches apart in the rows, and in the home garden for hand cultivation the rows need be only a foot apart. The setting out is best done in the evening and the plants then given a thorough watering. During the summer after the plants are six to ten inches high a top dressing of manure will help keep them growing rapidly. Thorough watering at regular intervals is essential to success. As the bunches become edible in size, blanch by placing boards along the sides of the rows or by using regular bleaching paper. Where plants are placed six inches apart or in a hotbed or coldframe, blanching will automatically take care of itself.

For the late crop seed is sown in rich loose soil outside about the last of May. This is transplanted into permanent rows when the seedlings are about two to three inches high. The late crop usually is not blanched in the bed but placed in trenches or dug up, roots attached, and packed closely in a box in which soil has previously been placed. Care must be taken to pack soil around the roots and pack bunches in close. After the box is filled, stand it in a cool, dark place and water the roots frequently. Celery thus can be kept growing and blanching all winter.

For the early and mid-summer crops, Golden Self-blanching or Easy-blanching is best, while one of the larger kinds such as Giant Pascal gives immense bunches of excellent quality for winter use. The simple secret to success then in the Celery patch is good seed, rich soil, and thorough watering. With attention to these three items and good culture any gardener may grow Celery worthy of an expert.

PRUNINGS FROM THE NEW YORK STATE EXPERIMENT STATION

Hints for the Amateur Fruit Grower on How to Increase His Yield

Careful pruning pays. With trees which are well selected when the orchard is put out it is necessary to remove only occasional branches which start out in the wrong place and to remove dead, injured, and crossed limbs.

If the trees are bearing small fruits, if the tops contain many dead branches, or if the seasonal growth is short and scant, judicious pruning is recommended as a means of rejuvenation. That usually consists of cutting back many branches and in entirely removing others. The following general rules are applicable under such conditions: "Prune weak-growing varieties heavily; strong-growing kinds lightly. Varieties which branch freely need little pruning; those with many unbranched limbs, much pruning. Prune trees in rich, deep soils lightly; in poor, shallow soils heavily. Cutting back all the branches of a tree is practiced regularly only with Peaches and some Plums because with these fruits the wood of the past season, and therefore the crop, is borne progressively further away from the trunk. It is necessary to head-in these fruits by cutting back the branches to keep the bearing wood near the trunk. On the other hand, Apples, Pears, Cherries, and most Plums bear on spurs from wood two or more years old and with these heading-in is not so desirable. Winter pruning has no special advantage over summer pruning, except that the pressure of other work is less during the winter months.

Plums. Very little difference was noted in the behavior of heavily pruned trees and those receiving much less pruning in tests conducted over a number of years with several standard varieties of Plums on the grounds of the Station at Geneva. In the opinion of the Station horticulturists most varieties require but little pruning subsequent to the proper shaping of the trees after they are planted. Since little pruning gives just as good if not better trees, it is a waste of time and effort to pay much attention to pruning Plums. The chief recommendation is to thin out thick growths where necessary and to remove broken or injured branches.

Ten varieties of Plums were used in the tests, including Abundance, Bradshaw, DeSoto, Grand Duke, Wayland, Pottawattamie, Reine Claude, Shropshire, and Italian Prune. Practically the only difference between the trees subjected to the two styles of pruning was that the little-pruned trees had larger and broader, more symmetrical heads. The increased size in no way retarded the maturity of the fruit or impeded harvesting. The size of the trunks and branches of the two lots of trees were practically the same, and there was very little difference in the height of the trees.

Pears. How to prune Pears to the best advantage has occupied the attention of the Station horticulturists for several years. The merits of high- and low-headed trees have been compared. Low-headed trees receiving little pruning have proved most satisfactory in all respects. Experiments have been conducted with such well-known varieties as Anjou, Bartlett, Kieffer, Sheldon, Seckel, and Lawrence to study the relative value of high and low heading. Certain of these varieties have also been used in tests of much and little pruning for Pears. It would seem that low heads were best for all varieties of Pears, especially for the tall, upright-growing types. Low-headed trees produced larger, broader, and rather more symmetrical tops than the high-headed ones. This would be particularly advantageous for unwieldy varieties of the Kieffer type. Little pruning seems to produce rather more symmetrical tops, as well as larger bearing areas. Heavy pruning appears to stimulate a greater wood growth which results in rather bushy growth or sometimes unwieldy branches and relatively smaller bearing areas.

North lawn where in June the Locust trees seem fairly to crown the place with their shining whiteness, their sweetness, and the music of a million bees; enclosed by an ingenious fence of stained shingle against which Globethistle, Babysbreath, and other flowering things rise comfortably

An Eighty Year Old Garden

at the home of

Mrs. Elizabeth Eddy Norris

Eddy Place, Brookfield, Mass.

Photographs by
E. E. Norris and James K. Mills

Seated among Rhododendrons and fragrant woodland leafage summer hours pass all too swiftly

Autumn Crocus (Colchicum autumnale) and Myrtle happily clothe the base of this old tree which otherwise might go bare of grace beneath

"TENDED WITH AFFECTIONATE UNDERSTANDING"

So writes Mrs. Eddy, present owner and preserver of this garden at Brookfield, Mass., which has been cherished by her family for over eighty years; the more domesticated plantings about the house being linked by this gently meandering walk to a wild flower garden beyond. (See opposite and also page 19 for other views)

VEGETABLES AS LIFE INSURANCE

G. O. LUROS
Nutritional Chemist

What the Garden Contributes to the Family's Welfare—Vitalizing with Vegetable Vitamins and Their

Importance in Everyday Diet—Fresh Light on Questions of Nutrition—Giving the Tomato Its Due

EVER since we have been brought face to face with the importance of vitamins in our lives, the Tomato has jumped to the foremost ranks of our vegetables. Because of its wealth of the three main types of vitamins, it is considered, along with Spinach, Lettuce, and Cabbage, one of the elect, one of "the Big Four" that head the vegetable kingdom. Among this vegetable aristocracy our Tomato may well be classed king, as he contains the largest amount, proportionally, of all the three main types of vitamins and is as well-borne by the tiny babe as by the octogenarian. The relative amounts of vitamins to be found in the various vegetables is shown in the accompanying chart.

Because the Tomato comes under all three classes of vitamin bearing foods, physicians all over the country are now advocating the use of Tomato juice in place of Orange juice in all cases of infant feeding. Orange juice has been the standard up to the present time, giving bottle-fed babies their vitamin C to protect them from infantile scurvy. Mother's milk contains sufficient of this vitamin, but raw cow's milk contains very little and pasteurized milk practically none. Hence bottle babies must obtain their supply from an outside source.

Tomato juice not only contains almost as much vitamin C as Orange juice, but it also contains as much vitamin B and a generous amount of vitamin A, practically absent from Orange juice. The large amount of vitamin B your baby now gets in his milk and his Tomato juice prevents him from contracting malnutrition, that pitiable and wasting baby disease that attacks so many babies. Also, the nursing mother will do well to include generous amounts of Tomato in her diet, for the increased amount of vitamins in her diet not only tends to increase the amount in her milk for her baby, but also increases her supply of milk.

THERE is no danger of overloading the system with vitamins. On the contrary, and this is especially so with babies and growing children, it has been found that the greater amount of vitamins the child consumes in his diet, the greater will be his development.

In the chart you will see the generous amount of vitamin A in Tomatoes. To guard against colds and their dread follower, pneumonia, it is well to have a large amount of this vitamin in our diet, especially in the winter time, when we seem such easy victims.

Some of you may come forth with the idea that the milk, butter, and eggs we eat will give us sufficient vitamin A. These foods will serve you admirably in the summer time, when the cows and hens have access to plenty of green pasture, but don't depend too strongly on them in the winter time.

If you know the farmer from whom you buy your dairy products, and know that he feeds his stock plenty of Alfalfa or Clover hay and ensilage, and his hens sprouted grain, then you can be assured that your milk, butter, and eggs are rich in this vitamin. But the majority of us, who live in the city, who buy the milk from the milk-man as he makes his daily morning rounds, know nothing whatever about the source. We know that the government inspects the milk to see that it contains the proper amount of butter-fat, and the dairies are regularly inspected, but there are no tests made for vitamin content.

Also, what do you know about the feed of the hen who lays your eggs? Because of the general lower vitamin content of the feed of these cows and hens during the important winter months, just when we need an increased amount of vitamin A to guard us from colds, the dairy products fall down on the job.

Here the Tomato accommodates us very nicely, having as much vitamin A in winter as in summer. But

VITAMINS IN THE VEGETABLE KINGDOM

(From "The Vitamins," by Casimir Funk and from the findings of other scientific investigators)

	Vitamin A	Vitamin B	Vitamin C
Vegetables			
Tomato, raw	++	++	+++
Tomato, canned (pressure)	++	++	++
Beans, white	+	+	
Beans, green		++	+
Beans, soya	+	+++	
Beetroot		++	
Cabbage, raw	+	+	+++
Carrots, new			
dried	+	+	+++
Carrots, old dried	+	+	++
Corn, yellow	++	+++	
Chard	+	+	
Dasheen	+?	++	
Lentils		++	
Lettuce	+	+	+
Peas		+++	
Peas, germinated			++
Potato, raw	+?	++	++
Peanuts	+?	++	
Potato, Sweet	++	+	
Onion		++	++
Rutabaga	+?	++	
Spinach	+++	++	
Rhubarb			++
Turnip, white		++	
Turnip, juice (Swede)		++	+++
Parsnip	+?	++	

	Vitamin A	Vitamin B	Vitamin C
Fruits			
Orange juice		++	++++
Lemons		++	++++
Limes			+
Grapefruit		++	+++
Grape juice, commercial			+
Prunes		++	+
Apples		+	
Pears		+	
Bananas	+	+	+
Nuts			
Cocoanut	+	++	
Brazil nut	+?	++	
Barcelona nut	+?	++	
English Walnut	+?	++	
Black Walnut		++	
Almond	+?	++	
Butternut	+?	++	
Chestnut		++	
Pecan		++	
Pine nut		++	
Filbert nut		++	
Cattle Feed			
(affecting milk content)			
Clover, dried	+++	++	
Alfalfa	+++	++	

VITAMINS IN OTHER FOODS

(Reprinted from chart of The American Medical Association)

	Vitamin A	Vitamin B	Vitamin C
Grain			
Bread White (Water)	?	+	—
Bread, White (Milk)	+	+	?
Bread, Whole Wheat (Water)	+	++	?
Bread, Whole Wheat (Milk)	++	++	?
Barley (Whole)	+	++	—
Corn, Yellow	+	++	—
Oats	+	++	—
Fish and Meat			
Meat, Lean	— to +	+?	+?
Beef Fat	+	—	—
Mutton Fat	+	—	—
Pig Kidney Fat	++	—	—

	Vitamin A	Vitamin B	Vitamin C
Oleomargarine	+	—	—
Liver	++	++	+
Kidney	++	++	+?
Brains	+	++	+?
Sweetbreads	+	+	*
Fish, Lean	—	+	*
Fish, Fat	+	+	*
Fish, Roe	+	++	+?
Milk, etc.			
Milk, Fresh	+++	++	+V
Milk, Condensed	+++	++	+V
Milk, Dried, (Whole)	+++	++	+V
Milk, Skimmed	+	++	+V
Buttermilk	+	++	+V
Cream	+++	++	+V
Butter	+++	—	—
Cheese	++	*	*
Cottage Cheese	+	*	*
Eggs	++	+	+?

\+ contains the Vitamin
++ good source of the Vitamin
+++ excellent source of the Vitamin

— no appreciable amount of the Vitamin
? doubt as to presence or relative amount
* evidence lacking or insufficient
V variable

again you may raise the objection that you can not get fresh Tomatoes all the year round, unless you live in the city and have a large enough purse to pay the high price Tomatoes command out of season.

THIS is the cue for the canned Tomato to enter the scene. However, unless you have a pressure cooker in which to can your Tomatoes, your home canned Tomatoes will have to give place to those commercially canned under pressure. This is because vitamin C, so essential in warding off scurvy, and which, along with vitamin A, is necessary for sound, healthy teeth, is very delicate and is practically destroyed under all processes of heating, unless this is done under pressure, in absence of air and with a short period of heating. Vitamins A and B are not appreciably affected by ordinary cooking methods, with the exception of frying, provided the vegetable liquor is saved. Since we have found, by experiment, that Tomatoes commercially canned, a process done under pressure and with very short period of heating, are much richer in vitamins than those home canned without pressure, the housewife is foolish to waste her time in canning Tomatoes, unless she has a pressure cooker.

Another advantage that the Tomato holds is that it is eaten whole. Even the most inexperienced and careless housewife knows better than to drain Tomatoes of their liquor after they have been cooked, for she knows that is impossible. One of the worst habits in so many of our American homes is that of draining and parboiling our vegetables. Down the sink so many cooks pour that vitally important vegetable liquor, which contains from thirty-six to seventy per cent. of our vitamins as well as the highly important mineral salts. No wonder most of us are bothered with indigestion, poor teeth, and constipation, as well as the more serious diabetes, when we so carelessly throw away nature's safeguards for our health.

Whenever you can, eat Tomatoes raw and eat them abundantly, for in the raw state we know they yield vitamins in their most potent form. Because of the steadily increasing mortality due to cancer and diabetes, scientists are urging the eating of more raw food. Get back to nature! It is a noteworthy fact that no case of cancer has as yet been discovered among the savage tribes. The finger seems to point to the large amount of cooked, drained, and highly, though detrimentally, refined foods with which we deck our tables.

MODEL DAILY DIET

(Selected foods of sufficient vitamin content to maintain health)

Our every-day foods contain all the requisite vitamins—it is not necessary to have recourse to "patent medicine" vitamins in tablet form. Let your daily menu include:

(1) An orange, tomato, or grapefruit (one-half)
(2) An egg and a generous allowance of butter
(3) Plenty of fresh vegetables (preferably Lettuce, Spinach, Tomatoes, Cabbage, or other "green vegetable")
(4) Milk, at least a pint per adult and a quart per child
(5) Whole flour bread
(6) A bowl of well-cooked cereal
(7) Meat and potatoes in small quantity only

UNFORTUNATELY, an insufficient amount of vitamins does not, like a dose of poison, manifest itself at once in our lives. It often takes years before it shows up, gradually undermining the digestive system and penetrating to the nervous system and every part of the body. Feed your children right is the slogan now, so they won't be a prey to all the avoidable grown-up diseases that will attack them later in life, as well as the disturbances that arise all along the years because care was not taken in their feeding from infancy on up.

Along with the popular idea, "Drink more milk," I would add, "Raise and eat more Tomatoes." If you are fortunate enough to have a little garden plot, try raising your own Tomatoes; but whether you raise them or not, get them from some source and get them often. Instead of serving them only occasionally in salads serve them on your table several times a week. Most children have to be taught to like Spinach, but they take to Tomatoes right away, and do not have to be forced to eat them. Because they are so rich in vitamins, are so inexpensive and so easily digested, give them the place they deserve. Take them out of the luxury class and put them among the necessities.

Although scientists are as yet in the dark as to the exact chemical nature of these highly important vitamins, we do know about their presence in foods; the effect of heat, storage, and freezing upon them; and the disturbances in the body, caused by a lack of insufficient amount of them in the diet.

The lack of vitamin A in the diet produces a serious eye disease, called xerophthalmia, very rare in this country. An insufficient amount, however, in the diet renders one very susceptible to colds and their complications, and has been found to be a most serious factor in dental caries or decay of teeth.

In respect to vitamin B, the first one to be discovered, we find its absence in the diet produces a disease of the nervous system, called beri-beri, uncommon in this country, fortunately, but prevalent among white-rice-eating Orientals. Nevertheless, an insufficient amount of this vitamin tends toward lung infections, malnutrition, and general digestive disturbances.

A lack of vitamin C produces scurvy, while an insufficient amount produces digestive disturbances and also has a serious effect on the liver and teeth.

WHAT ABOUT THE "CARRIED-OVER" SEEDS?

ARE last year's seeds still good? Are they worth taking a chance with? It is not worth while saving seeds of Eggplant and Peppers in any case, but if your seed-house supplied new crop Beans last season, they will grow even better this year. However, since it is practically impossible to check this, it is best to start afresh with everything. Parsnip is generally worthless after having been subjected to the varying atmospheric conditions governing an ordinary home. This is also particularly true of Asters, and *all* seeds for which the demand is very limited. The vitality of Seeds of Blue Laceflower, Lobelia, Mignonette, and Schizanthus seem to vary a great deal from year to year.

Seeds of such vegetables as Beets, Lettuce, all members of the Cabbage tribe, Tomatoes, Cucumbers, and all other "vining" crops may be safely used the second year assuming, of course, that the original purchases were in fresh bulk or trade packets. But even among these, the gardener is apt to encounter "snags." Large, light-colored Beet seeds, for instance, are never of as good germination as the little brown shrivelled ones. The difference lies in the curing of the seeds, the light-colored seeds having been harvested before they were dead ripe.

Among flower seeds all coarse-seeded kinds will give satisfactory germination the second year. But again, a great deal depends upon climatic conditions when the seeds were harvested. For this reason *all* California flower seeds (and 75 per cent. of all annual flowers offered by our seed-houses now come from there) are far superior in vitality to those imported from Europe.

Then again a great deal depends upon where your surplus was kept during the winter months. Shelves in the kitchen or cellar are no places for live seeds. The attic or garage will offer far more congenial surroundings. Seeds bought in bulk (ounces or pounds) are apt to be of more recent harvest than those contained in packets. This applies particularly to packets bought at hardware and grocery stores to which no experienced gardener goes as trustworthy sources of seeds. Buy your seeds from a seedsman!

GAY FLOWERS OUTDOORS THIS SUMMER FROM SEED

E. BADE

Hardy and Half-hardy Annuals That Furnish the Novice with Prompt Delight and Fill Garden Gaps With Bloom in the Dull Midsummer Season

THERE is a certain fascination in the growing of annuals, (and such biennials and perennials which flowering the first year from seed are culturally regarded as such) and in following their swift cycle of life—in watching them germinate, mature, flower, ripen seed, and, like all things beloved of the gods, die in full beauty of a life matured. Some other kinds, really perennials which would live but for the cold, have life snuffed out by the first sharp pinch of frost and are regarded as annuals in practice. For the beginner who has still to learn the lesson of long patience and a slacking of mood to meet nature's leisurely ways they are the most encouraging of playthings. The seasoned gardener knows their possibilities and depends upon them for certain quick and brilliant effects hardly to be gained in any other way. They make splendid intermediaries among the slower growing perennials after the passing of Daffodils, Tulips, and other spring-flowering bulbs and are the stand-by for outdoor flowers during the summer slump of the perennials.

CHILDS CHINESE WOOL-FLOWER

A gobular Cockscomb (see page 44)

Generally speaking, annuals are best sown rather thickly and thinned out later if need be, as they carry more convincingly in mass than as solitary or scattered specimens. Seed is usually sown outdoors during April and May; or if earlier bloom is wanted, sow under cover in February and March. Of course, seeds sown early get a headstart and as a rule yield flowers earlier. A number of annuals self-sow and all that is necessary is to transplant the larger seedlings wherever desired—among these are the common Summer-cypress (Kochia trichophylla), Rosemoss (Portulaca grandiflora), Mexican Flossflower (Ageratum mexicanum) and Cockscomb (Celosia), all of which perpetuate themselves by seed and reappear year after year.

Annuals which bear transplanting, and nearly all do, may be sown in the hotbed or indoors in seedboxes or paper pots at the end of February or first of March and moved to their places in the summer garden in May as soon as warm enough.

Because they mature quickly and bloom luxuriantly annuals need plenty of good food and do best in a sunny, protected situation. A soil which is fertile (but not freshly fertilized), loose, and more dry than moist, encourages full flowering; in too rich and heavy a soil they are apt to run to stalk rather than flower. This is particularly true of Asters, Cockscomb, and their like.

As a filler-in for beds of Iris or other early flowering plants, Annuals (Phlox, Zinnias, Malope, Clarkia, Calliopsis, etc.) may be sown with success in May and as late as the middle of June.

Height and habit and color are all to be duly considered, of course, whether annuals are used merely as fillers-in or in larger plantings where they are, so to speak, the whole show or at any rate the main part of it. Avoid the tiresome precision of rows by sowing in circular rills or by broadcasting freely in masses of irregular outline.

Tobacco (Nicotiana). One of the taller summer plants with flowers (usually white) which exhale a delicate perfume that fills the garden at dusk. The hybrid Nicotiana Sanderae (various shades of rose) flowers during the daytime. The Tobacco should be placed in a sunny location although it also does well in light shade. The soil must be fertile if the plant is to thrive, and water plentiful during the warmer season of the year. This Annual can be cultivated in the hotbed or in seedboxes.

BUTTERFLY-FLOWER (Schizanthus)

Dainty and fascinating in its diversity of colors and color combinations this annual flourishes best in regions where the summers are cool and moist

Since it sows its own seeds in the fall, many new plants develop during the second year which can be moved as desired.

Four-o'clock (Mirabilis jalapa). Does not attain the height of the Tobacco plant, is bushier, and produces numerous red, yellow, and white flowers. The seeds are best sown in seedboxes or in the hotbed. In the middle of May transplant the seedlings, 8 inches apart, in a sunny spot. One peculiarity of Mirabilis is that flowers of differing color are sometimes borne on one plant and some of these flowers even may be vari-colored. Many flowers are developed but all have the capricious habit of not opening till very late in the afternoon or early evening. The carrot-like root of Mirabilis can be kept over winter like the rootstocks of the Dahlia.

China-Aster (Callistephus chinensis). A popular garden plant with a great diversity of form and color, ranging from tall to diminutive forms. Attractive beds can be made containing a mixture of these varieties, the borders being furnished by the dwarfed forms. Since Asters can be transplanted without special injury, it is always advisable to sow the seeds on reserve beds and transplant where wanted, spacing about 8 inches apart, in soil which has not been freshly fertilized. If necessary, Asters can be transplanted when in bloom, with a large ball of soil about their roots.

Touch-me-not (Impatiens balsamina). Despite improvements during recent years, the modern Balsam still is not very common in gardens. The seeds germinate readily, seedlings being transplanted, to about one foot apart in a fertile soil and in a sunny location. During the dry season water freely.

Cosmos. Both tall and low forms flowering in the fall, their color ranging from pure white to rose-red and red. The late-flowering forms of this plant can not be recommended as they are too often cut down by the first night frosts even before they have really begun to bloom. The early-flowering forms are beautiful, and bloom from the middle of June till late autumn. Sow seeds in hotbed or seedboxes and transplant seedlings about May fifteenth.

Spiderflower (Cleome spinosa). Throws out flowers with showy rose-colored petals and purple spidery stamens on the tips of a 3-4 ft. high bush-like plant late in the season, but of good lasting quality. Seeds are sown in seedbox or hotbed and when transplanted, are placed 2-3 ft. apart.

Salpiglossis. A plant with very beautiful flowers ranging in color from yellow to the deepest reddish-black with gradations from red to brown, to purple. Attains a height of 3 feet. Requires a rich soil. In transplanting the seedlings from seedbox or hotbed to summer quarters, place quite close together. Very effective in mass.

Scabious or **Mourning-Bride** (Scabiosa). Another very good annual flowering from the end of June until killed by frost. Excellent as a cut flower. Flowers in a variety of tints, and in form tall, medium, or short. If started from seed indoors, on transplanting place seedlings close together in a sunny situation and in a fertile, somewhat loamy soil.

TOBACCO (Nicotiana)

Filling the garden at dusk with its sweet perfume and the glimmer of white flowers, the Tobacco plant is a desirable feature in many gardens (see page 42)

MALLOWWORT
(Malope grandiflora)

Easily grown and very effective; medium height with arresting flowers of violet, pink, or white

SPIDERFLOWER
(Cleome spinosa)

Coming rather late in the season with its strange, vivacious, purple stamens and rose-purple petals the Cleome attracts immediate interest

Summer-Cypress (Kochia trichophylla). Decorative chiefly for its habit, presenting a round, compact appearance. The flowers are diminutive and inconspicuous. Very effective by reason of its symmetrical shape when placed among gayly colored flowers and especially adapted for use as an edging plant. Foliage spicy and aromatic and turns to a crimson-red in fall. Propagated by seeds in seedboxes; seedlings to be kept cool though well lighted. It is best to transplant them several times before placing in the open, when they should be spaced about 3 ft. apart since more or less free-standing plants develop most uniformly.

Youth-and-old Age (Zinnia elegans). A serviceable half-hardy annual which has been developed in various bright colors as well as many pleasing pastel shades. Tall, medium, and dwarf forms are available, all of which are good. Propagate by sowing the seeds in seedboxes or in the hotbed and transplanting at the end of May, spacing 8 in. apart in a fertile soil and in a sunny spot. Keep thoroughly watered during the dry season.

Pot-Marigold (Calendula officinalis). An old garden friend of cheery hue—orange, gold, or lemon yellow. Seeds to be sown directly in the open between bushes or other higher plants. It does well and flowers willingly thus and oftentimes propagates itself by distributing its own seeds.

Tickseed or **Calliopsis** (Coreopsis). The newer forms of this annual—rich yellow with velvety brown inner disk—are peculiarly beautiful. The plant is distinguished by its long flowering period. It is best to propagate by sowing in hotbed or seedbox; if sown in the open, the flowers do not appear till quite late in the season. Space plants about 1 ft. apart.

Mallowwort (Malope grandiflora). Showy violet, pink, or white flowers begin to appear sometime in June and last until August. Sow seeds in the open where they readily germinate.

Petunia. A plant which always reappears each year by self-scattering of its seeds. Flowers white, or in shades of reddish purple. The newer ruffled forms are large-flowered, very attractive and graceful though the simpler forms are possibly hardier. Sow in seedboxes, and after hardening seedlings by gradually exposing to outdoor air, transplant 1 ft. apart, for the Petunia spreads to a certain extent.

Vervain (Verbena). A very colorful flower which can be used for almost any purpose in the garden, bearing clusters of showy and frequently fragrant flowers from June till frost, varying in color from white through lilac and rose to purple and dark purplish blue, with shades of pink and pale yellow. Sow seeds as early as February in seedbox or hotbed. When grown in seedboxes, they should be covered with a glass plate. Transplant seedlings, placing each individual in its own pot. Transplanting a number of times is advisable so that the young plants will become strong and vigorous before setting out in May. Space about 2 ft. apart and cut off shoots which trail on the ground.

Mexican Flossflower (Ageratum mexicanum). A dainty annual and one of the best for carpeting. Medium and tall forms well adapted for border planting. All types open their blossoms throughout the entire summer; flowers white, blue, rarely pink; the blue varieties being the most beautiful so far developed. For use as a border plant, sow in the hotbed, transplanting seedlings during May, spacing about 5 in. apart, in a rich soil and sunny location. During the hotter months of the year plenty of water must be provided.

Cockscomb (Celosia). There are two main types of Celosia, the crested and the feathered or plumy, ranging in color through red, purple, violet, crimson, amaranth, and yellow. The taller type is most generally cultivated, although no comb-like structure is then developed. They can be successfully used as fillers and the dark red varieties with large spherical heads or balls are the most effective and striking. They attain a height of slightly more than two feet. The seeds of these taller forms are not always fertile and should therefore be sown quite thick. The seedlings are sensitive to changes of temperature and must be raised in seedbox or hotbed where they should receive plenty of fresh air, be kept at moderate temperature (not too warm) and a sparing supply of moisture. It is best to transplant a number of times. Seedlings can be transplanted to the open the middle of May, placing about 1 ft. apart.

MOURNING-BRIDE
(Scabiosa—described on page 43)

SALPIGLOSSIS
Beautiful velvety-petaled flowers ranging from yellow through wine to deep reddish-black (see page 43)

Marigold (Tagetes). Familiar to most gardeners and beloved of many for their cheerful yellow, orange, or velvety maroon flowers carried until late in the autumn and for their strange, rather invigorating pungency. Their lasting quality makes them excellent cut flowers. The taller varieties blossom somewhat less freely than the dwarfer kinds but grow into tall stalwart plants requiring a 2 ft. space between each. The medium-sized forms are to be placed closer together while the low varieties need only 8 in. between. The latter are fine border plants, always charming, thriving in almost any type of soil, and flowering until the first night frosts. The seeds germinate readily, and if sown in seedbox or hotbed, produce bloom earlier in the season. Harden seedlings gradually before transplanting.

Butterfly-Flower (Schizanthus). A rich soil and sufficient moisture are main requisites for the luxuriant growth of this annual of fairy-like habit and fascinating color—lilac, rose, pure white, and white suffused with yellow, purple-crimson with golden spots, combined pink and carmine-brown flushed yellow, and a number of other combinations bizarre and arresting. Since the seedlings grow quite slowly, seeds are to be sown in a hotbed. When transplanting, space 1 ft. apart. The flowers make their appearance at the end of June or if cultivated in the open, later in the season.

Babys-breath (Gypsophila). White, sometimes rosy, tiny, mist-like flowers borne in airy profusion and very effective in mixed borders or as bouquets. Sow directly in the open during May, scattering the seeds among other flowering annuals. The flowering period is usually over by mid-June but a succession of bloom can easily be achieved by repeated sowings at intervals.

Rosemoss (Portulaca). A flower of many gay colors—rose, scarlet, yellow, etc.,—as well as softer tones of bronze, peach, and cream. Flourishes in dry spots in a poor type of soil, on terraces, and elsewhere not ordinarily agreeable to plants. The flowers have an amusing habit of opening under the direct rays of the sun and closing again at dusk, and persistently appear throughout the entire summer until checked by the first frosts. Sow seeds directly in the spot where they are to remain. Thin out so that plants stand about 8 in. apart, thus insuring a thick carpet of growth.

The National Garden Association

President: LEONARD BARRON, F.R.H.S.

Honorary Vice-Presidents: J. HORACE MCFARLAND, MRS. FRANCIS KING, MRS. RUSSELL TYSON, MRS. THOMAS G. WINTER, MRS. SAMUEL SLOAN, MR. FREDERICK NEWBOLD, MR. ROBERT PYLE, MRS. JOHN D. SHERMAN.

Coöperating Societies: NATIONAL PLANT, FLOWER AND FRUIT GUILD; AMERICAN DAHLIA SOCIETY; AMERICAN IRIS SOCIETY; ONTARIO HORTICULTURAL ASSOCIATION; AMERICAN FORESTRY ASSOCIATION; WOMEN'S NATIONAL FARM AND GARDEN ASSOCIATION; WILD FLOWER PRESERVATION SOCIETY; NATIONAL HORTICULTURAL SOCIETY; THE AGASSIZ ASSOCIATION; THE SCHOOL NATURE LEAGUE; SOCIETY OF LITTLE GARDENS.

National Garden Week for 1924 to be observed April 20th–26th

Endorsed by President Coolidge and the Governors of States

Successfully Launched Last Spring National Garden Week Becomes a Recurrent Yearly Festivity Throughout the Country—This Plan for Better Gardening and Better Citizenry, as Suggested by THE GARDEN MAGAZINE and Adopted by the General Federation of Women's Clubs, Now Sponsored Also by the Better Homes Association

AS THE date for National Garden Week approaches, it becomes evident that there is to be, if possible, an even more general observance of this week than that of last year.

Encouraging response is coming in daily from the Governors, all of whom have been asked to either endorse or proclaim this week in their respective states. The following have already announced their intention to coöperate: Governor Ritchie, Maryland; Governor Pinchot, Pennsylvania; Governor Denney, Delaware; Governor Cox, Massachusetts; Governor Ross, Wyoming; Governor Parker, Louisiana; Governor Mabey, Utah; Governor Walker, Georgia; Governor Whitfield, Mississippi; Governor Hunt, Arizona; Governor Donahey, Ohio; Governor McLeod, South Carolina. Others will take action before April 20th.

This week, observed in literally thousands of communities last year, brought out clearly that we, as a nation, are deeply and profoundly interested in home beautifying and civic betterment. In these times of world-stress, it is a most heartening indication of our nation's solidity and steadiness of purpose to find that Chambers of Commerce, Boards of Trade, National Officials, State Executives, Libraries; Schools and Churches; Rotary, Kiwanis and Lions Clubs, as well as many thousands of Women's Clubs turned earnestly to making homes and cities more beautiful and better places to live in.

The program as outlined by the General Federation of Women's Clubs and THE GARDEN MAGAZINE was followed in nearly all cases, but each locality found some specially helpful individual work to add to the general program. A few of the many hundred highlights in the picture of last spring's Garden Week are here set down by way of inspiration for this season's plans.

Things Your Town Might Do

AT NARBERTH, PA., a town of a thousand homes and a thousand and one gardens, an eight-acre Playground and Recreation Center was bought so that "the homemakers and their children and their children's children would have for all time ample space for outdoor recreation!" If every town would do this (as they so easily could) what a heritage of beauty and wealth would be preserved for our children!

At Springfield, Mass., the very full program was augmented by Noon Shop and Factory Talks. So far as we know, this was the only city including this particular effort for better homes and citizenship, the value of which cannot be overestimated.

The Community Flower Society of Columbus, Ohio, held a Plant and Shrub market and aided the Boy Scouts to establish a Bird Sanctuary in a suburban park.

The Pacific Light and Power Co. offered prizes for the best improvements in the company's grounds at each of their 60 different stations in Oregon, Idaho, and Washington. The results demonstrated clearly that public utility grounds can be made beautiful and attractive—a hint of value to every large manufacturing company.

At Oklahoma City the Garden Flower Club started a wild flower sanctuary, the only garden of its kind in the Southwest. There are 500 varieties of wild flowers peculiar to this state alone and the saving of these for future generations is part of a national wave of conservation of great permanent importance.

At Douglaston, L. I., the Garden Club aided in securing a motion picture machine for use in nature study work in the local schools.

Railroads improved their station grounds, the trackmen in many instances clearing up the sidings and actively coöperating in every way. (See pages 288, 289, Jan., 1924, G. M.)

The Civiton Club of Jacksonville, Florida, not only assumed the planting of trees on each side of a 15-mile highway in Florida, but personally scattered one thousand pounds of seeds of Phlox and other flowers.

Illustrated Lectures for Clubs and Communities

IN NEARLY every locality there was a demand for illustrated lectures on gardens and on the many phases of gardening, and we are glad to be able to announce that a number are now available at very moderate cost.

President Coolidge's Endorsement

The White House
Washington

It is a pleasure to comply with your request for a word expressive of my attitude toward the National Garden Week Campaign which is to be undertaken this spring. . . . National Garden Week seems now to be well on the way to establishment as a fixed national affair, and I hope this year's bservations of it will strengthen its position in the public interest and activities.

(*Signed*) *Calvin Coolidge*

(*Excerpt from the President's letter of January 17, 1924, to Mrs. Thomas G. Winter, President of the General Federation of Women's Clubs*)

A lecture on Landscape Architecture illustrated with 50 slides has been prepared under the auspices of the American Society of Landscape Architects and will be sent upon application to the American Federation of Arts, 1741 New York Avenue, Washington, D. C. (Rental fee $5, transportation charges extra. Either lecture or slides may be had separately at a cost of $2.50).

The New York State Agricultural College at Ithaca offers eight illustrated lectures (see page 363, Feb., 1924, G. M.) for the use of clubs and communities within the state.

"The Way To The Good Small Garden," an illustrated lecture by Mr. Fletcher Steele, L. A., is available through the Federated Women's Clubs to whom it was given by Mrs. Harold I. Pratt of The Garden Club of America.

The Montana Federation of Women's Clubs also offers an attractive group of illustrated lectures as well as a Pathé color film on "Gardens of France, America, and Japan." Detailed information may be had upon application to Mrs. W. I. Higgings, Chairman Division of Art In the Home and Garden, Atherton Place, Butte, Montana.

Creating the City "Garden Beautiful"

A NEW member of the National Garden Association is the Society of Little Gardens with headquarters in Philadelphia. Begun in a small way, this organization has become national in its scope and therefore seeks to coöperate with all garden clubs, village improvement societies, and similar organizations.

One dollar a year will entitle any group or club to associate membership in this society which aims to become a clearing house for those starting city gardens. Just now this society is issuing a most helpful plan for crop rotation in town gardens—free to members.

Broadcast Beauty Instead of Billboards

EVERY community observing National Garden Week should stress the abolishment of the billboards, which so distressingly disfigure our countryside, as an important part of their week's program. "The real weapon is public opinion," says Mr. J. Horace McFarland, President of The American Civic Association (see page 227, December, 1923, G. M.).

Get in touch with your State Highway Commissioner, County Road Commission, Local Board of Trade. Show the advertisers that the billboard works against and not for him. Many of the big companies (Goodyear Tire Co., Kelly-Springfield Tire Co., B. F. Goodrich Tire Co., Fisk Tire Co., Supreme Gulf Oil Co., Armour & Co., Kirkman & Son, etc.; see Feb., 1924, G. M., page 363.) are already convinced that highway advertising is poor advertising and are lining up with the anti-billboard forces.

Recent word from the Glens Falls Women's Clubs (conducting the anti-billboard campaign) adds three new names to the list of organizations which have pledged their support: the Hood Rubber Company, the Washburn-Crosby Company, and the Champion Spark Plug Company. Each of these firms states emphatically that the day for such outdoor advertising is passing, and that they will do all in their power to aid in saving our scenic beauty.

Available Programs and Leaflets

THE National Garden Association will be glad to send free upon request any or all of the following:

Programs for National Garden Week.
Constitution, By-laws, and Programs for Garden Clubs.

Bulletins on:

Roses, Growing Annual Flowering Plants, Dahlias for the Home, Chrysanthemums for the Home, The Small Vegetable Garden, The City Garden, The Farm Garden in the North, Beautifying the Farmstead.

Address all communications To The National Garden Association, Garden City, L. I.

GETTING RID OF TROUBLESOME ANTS

A METHOD of destroying ants recommended by Mr. W. B. Gurney, Assistant Entomologist of the Agricultural Department of New South Wales, is as follows: A bait is made with 9 lbs. of sugar, 9 pints of water, 6 grams of crystallized tartaric acid, 8.4 grams of benzoate of soda, 15 grams of sodium arsenite (or 25 grams of commercial sodium arsenite) and 1¼ lb. of honey. All the ingredients, except the sodium arsenite and the honey, should be boiled together slowly for thirty minutes and allowed to cool. The sodium arsenite is dissolved in half a pint of hot water, allowed to cool, and subsequently added to the cool sugar syrup and the whole well stirred. The honey is added last, and the bait mixed thoroughly.

Mr. Gurney placed the bait in small tins with the lids fitted on to keep out dust and rain, but the sides of the tins bent inwards to form openings that allowed the ants ready access to the poison. Each tin was furnished with about four ounces of the bait, a quantity that lasts for about a month without fermenting. Sufficient rag or sponge to absorb practically all the bait was put into the tin so that the ants could obtain a foothold and feed on the bait in large numbers. The value of this bait lies in its slow action, as the poison permits the ants to return again and again before they are killed, thus allowing time for them to carry some of the bait to the larvae and queens in the nests.

GALA TIME IN THE GARDEN

THE early spring months bring their own special zest—a gala time for the gardener going forth to conquer and create. Even FERTILIZERS, TOOLS, THE MAKING OF AN ASPARAGUS BED, VEGETABLES FOR THE FAMILY, and other practical matters dealt with in the February issue are touched with the glamour of fresh adventuring.

By April all the prosaic preliminaries from which beauty springs have been reckoned with and one turns gladly to the aesthetics of gardening. BELLES OF 1924 will pass in review before the reader seeking NOVELTIES FOR THE FLOWER BORDER and LAWN.

Do you know why Willows are quiet trees? Or what divides a "specimen" plant from a "filler"? You will find the answer in Mary P. Cunningham's illuminating article on COMPOSING WITH FOLIAGE in the April number—a number full of answers to all sorts of things including GARDEN CLUB PROGRAMS AND HOW THEY ARE OUTLINED.

THROUGH the generosity of Mrs. Charles H. Stout, THE GARDEN MAGAZINE *is privileged to announce the offer of a $50 cash prize to be awarded for a new and original poem on the Dahlia.*

Verse submitted in this competition must be of joyous mood in any lyric form, but not exceeding six stanzas in length. Competition closes October 1st, 1924, and all entries must reach THE GARDEN MAGAZINE *not later than that day.*

Contestants may submit any number of entries, with the name and address of the author plainly marked on each one, addressing them to the Dahlia Poem Contest, c/o Editors of THE GARDEN MAGAZINE, *Garden City, N. Y.*

THE DAHLIA OF MODERATE DEMAND

THOMAS J. STEED

When and Where and How to Grow This Favorite of Fall Gardens—Flowers of Divers Shapes and Bright Hues for Autumn Blooms with Very Little Fussing

DURING recent years the Dahlia seems to have stepped into a conspicuous place among the garden flowers—whether because its warm colors come with timely appeal toward the close of the summer season; or because of its ingratiating habit of changing its shape from a lackadaisical floppiness to the crispest, most precise curls; or because it unfolds a flaunting beauty with very little preliminary fuss and coaxing—whatever its appeal, certainly the Dahlia has established itself in a multitude of gardens North, South, East, and West.

The natural condition of soil and climate along the Pacific coast in particular are apparently ideal for the growing of Dahlias, though as a matter of fact almost any soil can be made to produce good Dahlias. Their preference is, however, for a light sandy loam with full view to the sun, especially during the forenoon, but better still all day.

Planting and Cultivation

THE first step in preparation is to distribute over the soil horse or cow manure that is well decayed, one bushel to each square yard, and also one to three pounds of a high grade fertilizer, as for example a mixture of bonemeal, dried blood, and sulphate or muriate of potash. This is to be spaded under, making the soil fine and loose at least ten or twelve inches deep, and is best done a month before planting the roots so that the fertilizer will become thoroughly incorporated with the soil.

Dahlias may be planted in any region after danger of frost has passed, this from April 1st to June 14th in the North; while in the South planting can be done in February and March. The plants are very tender and will not stand frost. If you risk early setting out and the weather becomes cool and frosty after the plants are up, they must be protected during the night by spreading newspapers over them which can be fastened down well by putting soil on their edges. Too early planting in cold damp soil has a tendency to rot the tubers, therefore proper drainage is important. Plant from two to four feet apart each way, the distance depending on kind of soil and type of flower grown, covering top or crown of the tuber with five or six inches of soil. In stiff soil it is best, however, not to put on the full six inches at first. When the plants have come through the covering and are above the level of the ground, gradually work the rest of the earth in around them. While this system is particularly adapted to clayey soil that has a tendency to harden after rain, it is also suitable in any other. When early planting is done it causes the shoots to come through more quickly and there is less danger of the roots rotting on account of dampness. If more than one shoot comes from a single tuber, break off all but one or two of the strongest shoots.

PRIZE DAHLIAS IN A 50 x 150 FT. YARD

Every Dahlia grower, no matter how cramped his space, has opportunity to produce prize-winning blooms. More than a hundred varieties flourished in this little garden of Mr. Rhigenzi at Hartford, Conn., and each year won their share of awards at the local shows

Later cultivation is as necessary as preliminary preparation of the soil and planting; not that Dahlias require so much, but whatever is to be done must be properly done at the right time. For the first four or five weeks of a Dahlia plant's life, up until the very first appearance of flower buds, give deep thorough cultivation every eight to ten days; after that only very shallow cultivation and only often enough to keep the soil free from the small weeds. Deep cultivation at this time would break off the tiny feeding roots that come close to the top of the soil at this stage. Some quickly available plant food, such as nitrate of soda or liquid manure, may be used as the flowers are developing. When growing large exhibition blooms it is also well to keep the plants supplied with plenty of water during a dry season.

Blooms of Many Types

IN GROWING extra large flowers pruning and disbudding are important. Remove all but the main branches and all buds except the central ones just as soon as the first sign of buds appears. If it is necessary to give the bushes support by tying them up to stakes, use one-inch strips of soft cloth and fasten loosely to avoid cutting or bruising the stalks. The stakes should be placed at the time when the tubers are planted, then there is no interference with the root system by driving the stakes into the ground after the plants have attained full size. The name of each plant may be placed on the stake, thus serving as a label. Stakes should be left three or four feet above the top of the soil and be driven deep enough to give them firm support, usually from eighteen inches to two feet, depending on looseness or firmness of the soil.

The Cactus Dahlia is probably the most popular type because of its beautiful, rare, chrysanthemum-like form and its wide range of colors and color combinations.

The Peony Dahlia is a close second, in type much like a semi-double Peony; hence its name.

The Decorative Dahlia, a very large and showy type, fine for cut flowers, stands between the Show or ball type and the Cactus in form. This type too is endowed with a splendid assortment of colors and blends.

The Collarette Dahlias are like singles with a row of tubular developments inside the ray florets.

Show Dahlias are the old-fashioned, ball-shaped types, very true and regular in shape, colors medium, size large. They are well worth while even though no longer so much in vogue.

The Pompon is a small form of the Show Dahlia, a very prolific flowering type of rather compact growth, and so can be planted closer than the others.

The Single or Century type of Dahlia, while not so largely grown as the other types, offers many beautiful varieties which are useful for indoor decorations.

New varieties and forms of special merit are constantly being introduced and each year sees new favorites which are worth trying out, and it often happens that some of these are of extraordinary value though it is well, of course, to test out the newcomers before planting them in quantity.

DOMINANT DAHLIAS OF TO-DAY

DERRILL W. HART

Selected Groups of Prize-winning Varieties to Guide the Prospective Buyer

COMPETITION in the Dahlia shows grows keener every year and if the amateur grower wants to enter his blooms on equal grounds with the skilled horticulturist at the state show, state fair, county fair, or local city exhibit, it is imperative that up-to-date varieties be staged. Even though competitive display be not the goal, real satisfaction is only to be had through keeping abreast of the times. The progressive gardener may use these lists in making his planting orders for this season. Each variety listed is a fine garden grower and the list embraces winners in the big shows of New York, Philadelphia, San Francisco and elsewhere. The selections are the result of several years of study in show room and garden. Wherever possible, the name of the originator has been given.

Decoratives

PINKS

Jersey Beauty (Waite). The finest pink to date. Sensational 1923 winner.
Margaret Masson (Stewart & Fisher). Clear soft pink; exquisite coloring. A 1923 winner at Philadelphia and Trenton.
Rockwood (Bessie Boston). Rich cerise pink; very artistic flower.
Constancy (Seal). Watermelon pink; fine flower.
Old Rose Beauty (Van Bourgondien). Aptly named flower on extra long stems.
Pride of Connecticut (Alling). Graceful, clear pink.

REDS

Tommy Atkins (Bessie Boston). Just about the brightest colored of all Dahlias; covered with metallic lustre.
Giant Ruby (Greinberg). Brilliant red of extreme beauty and flashy appearance.
Henry F. Michell (Root). Splendidly formed flower on long stems; fine for exhibition.

WHITES

Eliza Clark Bull (Bessie Boston). Pure white of exceedingly fine texture; gigantic flowers on good stems.
White Sister (Stout). Large ivory white; broad petals; large flowers. A 1923 winner.
White Glory (Alling). Another pure white; perfect Decorative type.
Snowdrift (Broomall). Still one of the best whites.

LAVENDER SHADES

Jersey Jewel (Waite). Fine large flower of great beauty; soft color.
Shadow Lavender (Bessie Boston). Silvery white and lavender; still the outstanding lavender.
Mrs. Carl Salbach (Salbach). A really beautiful Dahlia; clear lavender, shading lighter towards center. stems like wire.
La Mascotte (Bessie Boston). The most unusual Dahlia in this class; distinctively different in color.
Jersey Gem (Waite). Very deep lavender mauve Several times winner in 1923.

AUTUMN SHADES

Amun Ra (Seal). Nothing surpasses this burnished copper in effectiveness either in show room or in garden; giant flowers.
Insulinde (Hornsvelde). Coppery bronze flower of immense size; indispensable as an exhibition flower.
Al Koran (Davies). A beautiful combination of golden orange and amber.
Winfield Slocombe (Slocombe). Rich orange; ideal cut flower.
Champagne (Bessie Boston). Beautiful massive buff flower with a touch of "champagne."

GOLDEN YELLOW SHADES

El Dorado (Bessie Boston). Pure golden flower; even formation.
Sagamore (Badetty Bros.) One of the finest Dahlias; deep gold with salmon center; a consistent winner.
Mrs. John M. Root (Root). Gigantic flowers of rich orange.

Paul Michael (Michael). Rich orange; winner East and West.
M. H. DeYoung (Bessie Boston). A real golden yellow of finest texture.

SALMON SHADES

Mr. Crowley (Broomall). An attractive combination, outer rays pure salmon, inner rays gold.
Leora Creed (Salbach). Salmon buff, covered with golden lustre; distinctive in color.
Wizard of Oz (Doolittle). Gigantic but graceful flower of salmon with amber and gold shadings.
Judge Marean (Marean). A many-shaded flower of extreme beauty; salmon, gold, red, orange, and mauve.

PARTI-COLORED

Islam Patrol (Davies). Unlike any existing color combination, rich red, with gold tips and gold shadings at center.
Nobilis (Doolittle). Stunning combination of white and red with white predominating; the most attractive parti-colored Decorative.
Mephistopheles (Marean). Rich ruby red with gold tips; an outstanding exhibition variety.
President Wilson. Still one of the best bi-colored varieties; clear cerise red, tipped white.

Giant Decoratives

If you want flowers to win the prizes for the "largest flowers" in the show, I suggest three Decoratives:
Junior (Seal). Giant lavender.
Bashful Giant (Marean). Gigantic yellow with deep orange shadings.
Mrs. John M. Root. Described above.

Hybrid-cactus Varieties

PINKS

Helen Durnbaugh (Broomall). A beautiful pink that deserves more popularity; almost Cactus in form.
Viola Bryant (Jost). Clear pink, fine formation.
Esther Holmes (Greinberg). Beautiful deep lavender pink.

YELLOWS

Herbert Hoover. Clear sulphur yellow; a winner for its keeping qualities.
Glory of California (Seal). Immense flower on good stems. A seedling winner in California.
Mrs. Ethel F. T. Smith (Broomall). Soft waxen yellow; giant flower.

WHITES

Gladys Sherwood (Broomall). Starlike flowers of rare beauty. A consistent winner.
Mrs. W. E. Estes (Estes). Another good white Hybrid-cactus. Immense bloom.
Washington City (Tyler). A striking white flower; almost Cactus in form.

LAVENDER SHADES

Mariposa (Bessie Boston). Sometimes shows pink; very fine.

PARTI-COLORED

Mrs. John L. Gardner (Stewart & Fisher). Stunning combination of red, tipped white. A two-time seedling winner at Trenton.
Francis Lobdell (Waite). Delicate combination of pink and white. Excellent garden variety.

AUTUMN SHADES

Jersey's Radiant (Waite). Rich saffron orange; will win its way anywhere.
El Granada (Bessie Boston). Deep orange, reflex gold, unusually graceful flowers.
Dr. L. C. Bosher (Bosher). Terra-cotta color. One of the best for cut flowers.

Cactus Varieties

While every one named is a "standout" variety in the garden, these also are the best Cactus varieties for exhibition.
Ambassador (Broomall). Clear yellow with salmon shadings at center. Sensational winner; one of the best, any class; can be shown as "largest flower."
Ballet Girl (Bessie Boston). Graceful combination of orange-red and white. An aptly named flower.
F. W. Fellowes (Stredwick). Real henna in color; unsurpassed for exhibition.
Niebelungenhort (Goos & Koenemann.) Pure rose pink and a gem as a cut flower.
Pierrot (Stredwick). Amber, tipped white; very large for Cactus.
Valiant (Stredwick). About the best red Cactus.

Peony Varieties

City of Portland (Gill). Clear yellow, gigantic blooms.
Elizabeth Boston (Bessie Boston). Deep crimson; a striking flower.
Gorgeous (Bessie Boston). Yellow shading to scarlet; immense flowers, as good as anything of its type.
Mrs. C. E. Trower (Seal). Salmon rose pink; sometimes Decorative in form.
Dr. Peary (?) Rich dark red; a gem of color.
Pearl Ruggles (Ruggles). Carmine rose shading almost to white at center.
The Oriole (Burns). Stunning combination of orange, red and buff; sometimes tipped white.

GETTING BETTER APPLES BY PRUNING

A. FREEMAN MASON
Extension Specialist in Fruit Growing, New Jersey Agricultural College and Experiment Station

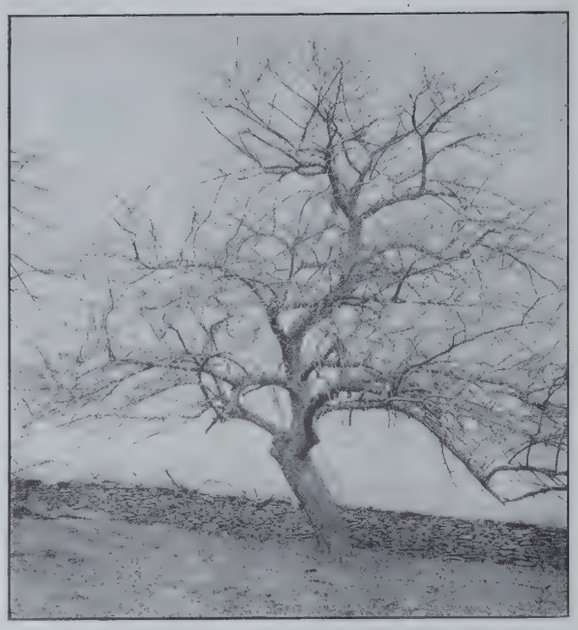
SINCE the quality of fruit is definitely affected by the sort of pruning a tree receives the difference between good and bad apples may be merely the result of good or poor pruning. Yet even among commercial orchardists this important truth is not always realized, if we are to judge by examples of trees seen almost daily. Surely anybody with any fruit trees at all wants an Apple tree, and as an ornamental specimen about the lawn it has an unparalleled interest of beauty of flower, of form, and of crop. By all means let us grow our apples as well as we can!

Now pruning is not a thing of mathematics, but rather an art or craft, wherein certain fundamentals are applied individually in varying ways. And herein lies the "mystery." One cannot lay down a law to cover pruning of all kinds and all ages of trees although certain empirical practices are well established. The age of the tree, its vigor, the density and shape of the head, and the kind of soil it is growing on all have a bearing on the treatment.

The Training of a Young Tree

IN THE case of the young non-bearing tree the first consideration is the development of a suitable framework of large stout branches on which future heavy loads may be borne. There are two general lines along which the framework may be developed, and the owner of the newly planted Apple tree must decide on one or the other before he can prune intelligently. One is to develop the tree with a definite trunk running up through the center, and the other, is to develop a vase-shaped tree having an open center.

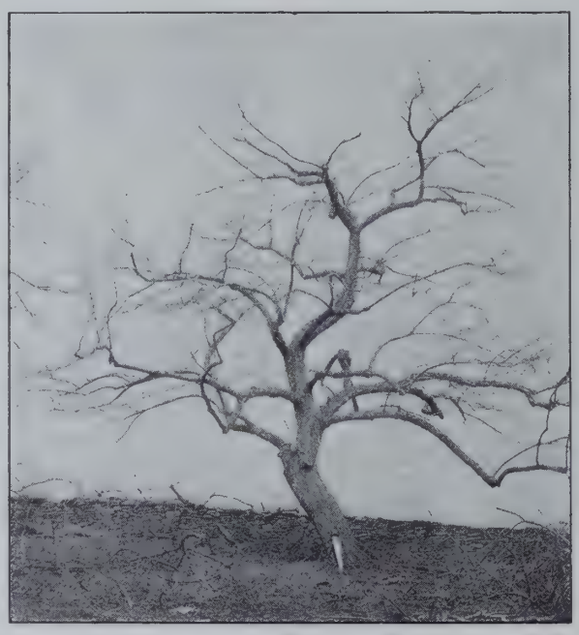
The leader-type tree, that is, one having a definite central trunk running up through it, is generally a sturdier tree than the open-center tree. To secure this type allow the leader to remain, cutting it back only lightly so that it will continue dominant. Scaffold branches large enough to compete with the leader being cut back to hold them in check. This will make the leader the highest shoot on the tree. The tipping back of



A fifty-year-old Rhode Island Greening before renovation pruning showing a multiplicity of small branches that would later shut out sunshine and light

How An Apple Tree Profits By Pruning

Showing A Fifty-Year-Old Rhode Island Greening Before Trimming and In Various Stages of Development Afterward



The same tree after superfluous branches have been cut away giving opportunity for development of better fruits without marring the fundamental beauty of framework

side branches to a quarter or third is done after the first year's growth to promote sturdiness. During the following non-bearing years only a very light thinning of excess branches and sprouts is given, keeping the leader dominant, selecting the new scaffold branches on the upper trunk, and lightly cutting back any too-ambitious scaffold branches which may compete with the leader or grow too long and "leggy"; the leader itself being stopped when a height of twelve to fifteen feet is reached.

In the open-center tree the three or four scaffold branches are kept growing evenly, each one dominating its share of the tree. Large crossing branches, and heavy shoots tending to fill up the center of the tree are removed. Otherwise but little pruning is done. It may be fairly said that in developing an open-center tree each scaffold branch is treated about the same as a separate central leader tree, except that the large side branches running in toward the open center are not allowed to develop.

Building Up A Sturdy Framework

THE selection of the scaffold branches is most important. On the open-center tree, there should be three or four distributed evenly around the trunk, and separated, if possible, by several inches. On the leader-type tree there should be many scaffold branches, spaced fifteen to twenty inches apart, only one or two being selected each year as the tree grows taller. Other side branches arising from the trunk should not be allowed to compete with the scaffold. Choose vigorous, wide-angled branches, avoiding, so far as possible, the narrow-angled branches which usually arise from the topmost bud. These narrow-angle branches make bad crotches as the tree grows older, and eventually split under a heavy load. It is economy in the end to take somewhat weaker lower branches, if they have wide-angled, strong crotches. Always remove narrow-angled branches while they are small. In subsequent pruning, leave as many as possible of the smaller twigs and shoots to clothe the branches; for they promote stocky, vigorous growth, and earlier bearing.

Light Pruning for Early Bearing

IN handling young non-bearing trees: remember that heavy pruning promotes the growth of abundant sprouts and much new wood and delays bearing; while, conversely, light pruning results in a larger tree, and earlier bearing. I vividly recall an example of this shown by Dr. U. P. Hedrick of the N. Y. Agricultural Experiment Station at Geneva: one group of Baldwin trees, about eight years of age, had been heavily pruned and to that date had produced no fruit; whereas an adjoining block that had been lightly pruned had produced considerable fruit; and a third block, *left unpruned*, had produced most heavily!

Similarly in Hammonton, N. J., Mr. Chas. Fitting planted out an Apple orchard consisting of about one hundred Stayman trees nine years ago. Being an extensive grower of Peaches, he pruned these trees heavily, heading them back somewhat in the

Even now when in leaf there is ample space between the boughs for free circulation of sunlight and air

same manner as when pruning his Peach trees, stimulating a tremendous growth of new sprouts but no crops. Four years ago he set out another block of Stayman trees, pruning very lightly, bending his efforts to the proper development of the scaffold branches, and doing very little other cutting. This past fall the trees bore a scattered crop ranging from an apple or so to as much as almost a half-basket per tree.

How to Treat the Mature Tree

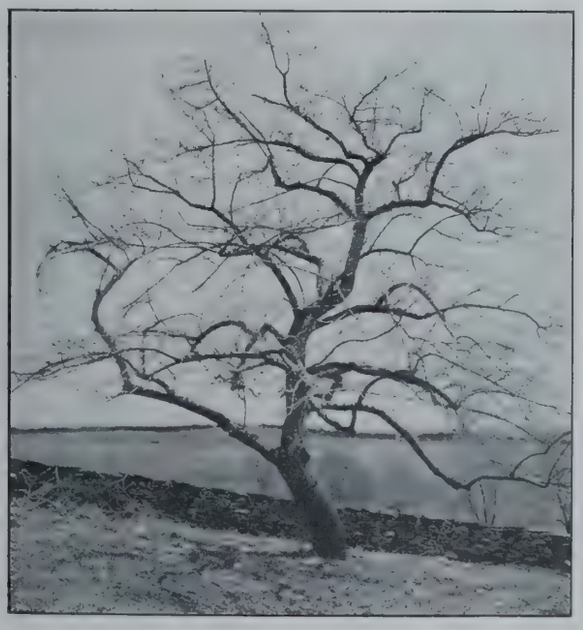
BEARING Apple trees require quite different tactics, because they are developed and at work, so that there is less danger of reducing the crop by pruning treatments. The end in view in such cases is to see that sunlight can get through the head to the lower branches, that the fruiting wood is reduced to an amount readily supported by the tree, that weak branches are shortened back to strengthen them, and that long rangy branches which would carry the growth of the tree skyward, are properly shortened.

The response to a pruning cut is greatest on that part of the limb immediately adjoining the cut. Therefore bulk pruning, by the removal of a few large limbs, will not give the results desired. Detailed pruning throughout the head—the removal of small twigs and branches wherever the tree has become dense and brushy—is essential.

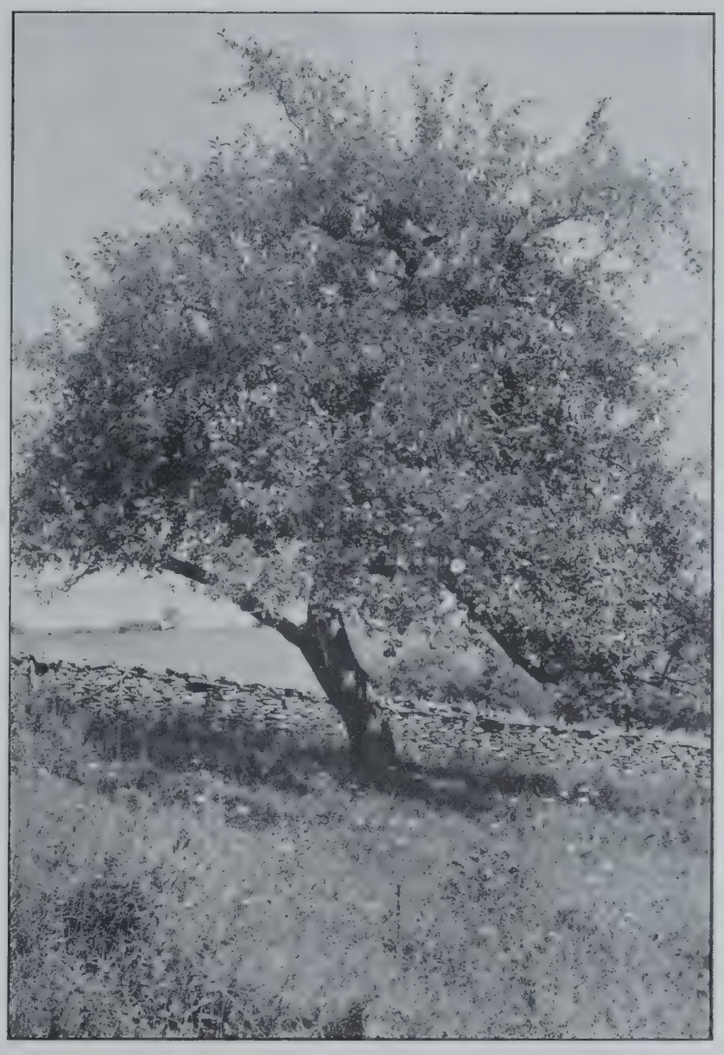
This should not be taken to mean that large branches are never to be removed. A few such branches must frequently be removed before any satisfactory detailed pruning can be done. Even one or two scaffold branches four or five inches in diameter may have to be cut out.

The first step, then, is to remove any excess large branches. The second step is to thin out and open up the top of the tree. If the tree has reached a sufficient height, say eighteen to twenty feet, the leader branches may be tipped back to well-developed side branches, running toward the outside of the tree. These can usually be found in abundance by cutting back into two-year-old wood on the leaders. Thus the tree can be kept from growing any taller.

The third step is to thin out the growth around the sides. This is the part which takes the most time, and which is most likely to be slighted. A stepladder and lopping shears supplemented by a good pole-pruner are perhaps the most useful tools for this work. Crossing branches should be removed or shortened so that they no longer interfere. Twigs and small branches which grow from the top of a limb and bend down along it, or stand straight up from it, or those which grow from below and hang directly beneath the limbs are also undesirable. This leaves the lateral branches that spread their surfaces flat to the sun to carry the crop.



Note the strengthening of fruit spurs and the growth of new wood a year after pruning (same tree as shown above) which promises an increase in size and beauty of apples to be borne



Though only the second summer after its fairly severe renovation pruning (see opposite page) this Greening Apple tree is already becoming slightly too dense at the top

Improving the Quality of Your Crop

NO RULE can be made as to the amount of wood to remove from any tree. Each tree is an individual and offers its own problem. As an indication of the effect of pruning on the quality of the crop, the results of a pruning demonstration at the home of Senator Emmor Roberts, at Moorestown, N. J., are typical.

Some Rome Beauty Apple trees were thoroughly pruned, and the results compared with the thick, brushy trees. On the well-pruned trees, fifty-four per cent. of the apples were over three inches in size, while on the brushy trees only thirty per cent. were over three inches. Only eight per cent. were two and one-half inches in size on the well-pruned trees, while thirty-four per cent. on the brushy trees ran two and one-half inches. The total crop of the brushy trees averaged 25.4 bushels per tree, while that of thoroughly pruned trees averaged 20.4 bushels per tree. When it is considered that these yields were secured the first year after the heavy pruning, before fruiting wood could be developed on the inner, lower branches, the reduction is not as serious as it might appear, and should grow less with each succeeding year. It is also considerably compensated for by the great increase in the size and value of the fruit. A 2.5 per cent. increase of apples having 50 per cent. or more red color also accompanied the increase in size.

AMONG OUR GARDEN NEIGHBORS

EVERY GARDEN MEANS A HOME

TWO BIG SHOWS THIS MONTH

THE clans gather this year for the two big Spring Flower Show events in New York and Cleveland, and the Editor of THE GARDEN MAGAZINE hopes to meet friends and renew acquaintances on both occasions.

The big New York flower show, the 11th in the annual series, opening in the Grand Central Palace March 17th continuing to the 22nd, is in fact the event of wider interest, The Horticultural Society of New York and the New York Florists Club are the direct sponsors and there is the added coöperation of the Garden Club of America and all the affiliated activities this implies.

Last year the Garden Club classes for miniature or model gardens and for table decorations, etc., constituted the most salient interest to the greater body of amateur gardeners who visited the show. This feature is to be greatly developed this year and the Garden Club of America exhibits comprise five classes.

The model garden class is designed for a plot 50 x 125 ft. and the house model is supplied on a scale of $\frac{1}{4}$ in. to the ft. which, of course, governs the size of the exhibit. In the second model garden class the plot is 125 x 150 ft. These two classes cannot fail to be of appealing interest to the great majority of those who will visit the show, whose own problems will surely fall into one or the other class.

Prizes are offered for "community planting" i.e. two, three, or four houses and gardens planned with reference to each other on lots of equal size. Yet another class in planning is to attract schools of landscape architecture and entries from some of the leading educational institutions are assured.

In a class for floral decorations the problems are set for a living room or hall, and a different color scheme for each day of the week, beginning on Monday with dried flowers, Tuesday blue or mauve, Wednesday orange and yellow, Thursday rose and pink, Friday white and green, Saturday Tulips.

The American Society of Landscape Architecture is participating and will contribute plans in demonstration of the community planting idea; the work being undertaken by Lutrel Briggs, N. Chamberlain, A. Fitzhugh, R. Fowler, and A. Tibbitts.

The stated exhibits in the regular classes will naturally be of conventional character. The plants will be on exhibition throughout the week; second day, cut Roses, private growers; third day, dinner table decorations and cut Roses; fourth day, Carnations including dinner table decorations and commercial growers' display of cut Roses; fifth day, Sweet-peas; and final day, dinner table decorations with miscellaneous cut flowers.

The feature garden display to endure the week—always an exceptionally spectacular feature—will be an arrangement in 750 sq. ft., an appropriation of $6,000 having been made to cover the six exhibits in this class. The total of scheduled classes numbers up to 331 and offers ample opportunity for everything in season so that the visitors may be assured of a sustained and diversified interest.

THE Sixth National Flower Show opens in Cleveland, Ohio, March 29th–April 6th. This enterprising undertaking of the National Flower Show committee of the Society of American Florists thus makes its deferred visit to Cleveland and signalizes the fruition of concerted effort in this region to establish a large flower show of national character.

With the coöperating assistance of the many well established garden clubs of the region, the visitor here may rely upon an equally worthy representation of the gardening interests of the surrounding territory. The coöperation of well known local landscape architects has been secured and the promise is that, in this Sixth National Flower Show, Cleveland will set a standard of artistic and instructive display that will be memorable.

ORCHIDS IN MAY

THE next widespread exhibition interest of this season centers in the American Orchid Society's first exhibition in Horticultural Hall, Boston, May 8th to 11th, which will assume something of an international character, for the chairman of the jurors is the well known English orchidist, Mr. Gurney Wilson, and by special permits of the Federal Horticultural Board Orchid enthusiasts in this country will be afforded an opportunity of seeing some of the newer gems and rarities from the European Orchid collections which are being brought over for the occasion.

Of recent years the special efforts of the Massachusetts Horticultural Society have gained enormously in interest and in actual achievement through the personal stimulus of the president, Mr. A. G. Burrage, and as this gentleman also happens to be president of the American Orchid Society it may be confidently assumed that he will be even doubly concerned in carrying forward this first great Orchid Exhibition to a thoroughly successful issue.

A FLOWER SHOW IN A GARDEN

THE Pennsylvania Horticultural Society (coöperating with the leading garden clubs within the working radius of Philadelphia, including the Four Counties Garden Club and the constituent member clubs of the Garden Club of America), will participate in a novel and brilliant gathering June 6th and 7th. This will be the principal summer meeting of the Pennsylvania Horticultural Society and will take the form of an outdoor flower show to be laid down in the grounds of the very beautiful estate at Haverford, Pa., developed by the late Clement A. Griscom. Exhibits will be established in temporary beds along the walks and about the lawns of what has always been a very interesting and well maintained garden. Could there be a more appropriate setting?

National Garden Week, 1924, April 20th–26th.

Don't forget that each individual can do something. What is your concern? The General Federation of Women's Clubs, Garden Clubs, Horticultural Societies, Civic Associations are working together for a common cause. Get in touch with your local organization, whatever it may be.

THE OPEN COLUMN

Readers' Interchange of Experience and Comment

Own-root Roses a Yard Apart!

To the Editors of THE GARDEN MAGAZINE:

TO have brought back the Rose to the flower garden is the best bit of work I have done so far; and, therefore, with reference to what I said in my article in the February number (pages 341-343) I should make it clear, that in bringing back the "Queen of Flowers" to her due place, I do not crowd her in the bedding way, which is not good either for beauty or for health. My Roses stand a yard apart so that each plant can develop its full stature and beauty. Wherever possible the plants are on their own roots; but, as in the trade there is no such thing as growing them in that way, I have to put in cuttings of my favorites every autumn. Even then new kinds can only be obtained as grafted on the Dog-briar, and all we can do is to bare the bark round the graft and above it. We hope that the plant will start out its own root. It is a poor substitute, however, for the real thing—the natural root.—WILLIAM ROBINSON, *Gravetye, Sussex, England.*

Humming-birds as Originators of Gladiolus

To the Editors of THE GARDEN MAGAZINE:

FOR several years I have been an enthusiastic reader of your magazine and consider it the most useful all-around journal for the amateur gardener. Have recently sent subscription for same to our "Y" Reading Room. The Open Column often contains valuable information and the pictures of gardens which you have been running for some time are most interesting.

My own garden, a delightful hobby, while neither formal nor showy is considered by many very attractive during the blooming season, especially when the "Glads" are in flower. Of these, I have over fifteen thousand bulbs, gathered from many of the most prominent growers, and the humming-birds who swarm over the blooms have given us many varieties not elsewhere to be seen.—ISAAC B. WAKEMAN, *Conn.*

Engaging Little Polyantha Roses for All Summer Bloom

To The Editors of THE GARDEN MAGAZINE:

THE most satisfactory things in our garden last summer, judged by bloom, were the beds of Polyantha Roses. From early June to the end of November they were in continuous flower—not great trusses of flowers, to be sure, but single blossoms well covering the little bushes. The variety is Echo, an exquisite pink when the sun is not too hot. There are about seventy bushes and they fill two beds which are always in the eye of the beholder and which just must look well all summer long. They are bedded with Pansies raised from seed sown the preceding August. The result is the gayest spot in the garden—gay with a kind of engaging simplicity or naïveté—the miniature Roses set among their little leaves; the quaint faces of the Pansies, always a little droll, below. It makes one feel light-hearted just to see them! Small bedding plants as Pansies and Violas are perfectly practical with Polyantha Roses because the latter need so little cultivation during the season. I find them quite in the way with Hybrid-Teas because the Roses require constant loosening of the soil and fertilizing.

Why do we so seldom see Mahonia, that shrub with the wonderful foliage? Whenever I pass a garden where Mahonia grows I do homage to the good taste of the owner. Mahonia is one of the aristocrats of the garden (although I don't know that Mr. Wilson includes it in his goodly company) as surely as Boxwood and English Ivy and Magnolias. In spite of its distinguished appearance, I never hear of nurserymen featuring it and comparatively few amateurs know it. The leaves of the Mahonia with their shape and coloring make an admirable foil for pale Tea Roses. They are lovely also with Chrysanthemums and when arranged with the stiff red berries which country people bring to market tied in little bundles, they make a charming basket. Alas, that they should be so shabby in the spring when the bulbs are coming up around them! Evergreen ground covers are doing a great deal to redeem hopeless corners and out-of-the-way places in my garden. Pachysandra terminalis covers the bare ground immediately below the windows of living rooms where old trees take the life from the soil and where the sun seldom shines. A bare spot in the lawn at a boundary line also densely shaded, is being fertilized, lightened with leafmold, and planted with Vinca minor.—HELEN M. SHARPE, *Chambersburg, Pa.*

ROSE TIME IN MR. I. B. WAKEMAN'S GARDEN AT SAUGATUCK, CONN.

Where humming-birds gather when the Gladiolus are in flower, playing the part of industrious little hybridizers (see text above)

Good Garden Roses for the Different Sections

To the Editors of THE GARDEN MAGAZINE:

IT SEEMS to me that a list of Roses that do well in the different sections made up by your subscribers in the different states would prove very helpful to all of us and would give the beginner the encouragement of success at the very start instead of the discouraging failure that was my lot.

I went to my local greenhouse man to find out what to buy and lost two years in discovering how poor my varieties were for garden use. When the first June arrived I had a yard full of Killarney, Paul Neyron, and American Beauty bushes—the greenhouse man having been (naturally) interested in good Roses to force under glass and failing to discriminate between them and varieties suitable for garden use.—J. R. DICKSON, *Columbus, Ohio.*

—The collection of just such constructive data has been undertaken by the American Rose Society, among other serviceable activities, and their findings are reprinted on pages 24 and 25 of this issue, constituting a most reliable and illuminating guide to "Roses for All America." Of course, as Mr. Dickson points out in his letter above there is a clear-cut distinction between Roses for cultivation under glass and those grown under ordinary garden conditions—a distinction to be borne in mind by the amateur when making a selection for either purpose.—ED.

Use Your Frames All Summer

To the Editors of THE GARDEN MAGAZINE:

FOR several summers I have made good use of the frames by growing pole String-beans in them. This type of Beans does not do well in our vegetable garden, always getting a blight similar to the "streak" that Sweet-peas are so subject to. In the specially prepared soil of the frames this blight does not appear, which may be due to the ease with which the plants are kept growing ahead. In the open garden the ill effects of a dry spell will soon show in a yellowing, drying, and curling of leaves, which are sure signs of disaster to come.

As each frame is emptied of its contents—potted Tomato plants, Egg-plants, Celery, etc.—I plant the Beans. All the frames are not ready at the same time, which is convenient as it gives a succession. The bed is prepared by forking well so that the top soil is mixed with the manure that was used early in the season to give the bottom heat necessary to hurry along the seedling vegetables and flowers. By this time the manure is cold and fairly well rotted, for we do not use that long strawy kind. Then bamboo poles, six feet long at the least, are put in a row down each side and across the top of the beds. The poles are spaced about a foot apart, only one row being necessary between frames in which beds of Beans are next to each other. More poles, spaced eighteen inches apart, are woven between the uprights, and the corners

FRAMES THAT DO DOUBLE SERVICE

When emptied of their spring contents these frames are pressed into summer service and make a fine place for growing pole Beans on bamboo trellises as here shown; Eggplants flourishing in foreground. Mrs. Peckham's garden at New Rochelle, N. Y.

are tied together with strong string, making a firm checkerboard lattice. Now the soil is forked lightly again, well raked and watered, and left to settle. The next day a shallow drill is made with a hoe at the base of the bamboos, and the Beans, generally of the variety Kentucky Wonder, are planted about two inches apart and covered with an inch of soil which is well firmed on top with the palm of the hand.

After the tiny seedlings put in their appearance the beds are kept watered, and when the second leaves are on, the soil is hoed up against the stems to lean the plant toward the supports and a piece of "grocer's twine" used to hold them in place. Tendrils soon begin to take hold, and the plants twist themselves around and climb up like magic. No more attention is needed except to give some water, preferably with the hose, each evening at the top and in the center of the bed.

The great advantage of growing Beans in this way is one's indifference to periods of drought, the watering is so easy and Pole-Beans should be kept "a moving on." The crop here is generally amazingly heavy; it is remarkable how many quarts two beds will produce.

Kentucky Wonder is a delicious Bean if the pods are picked young. They attain such size that this can easily be done and a big, economical bean be had, for they are tender when quite large and are nice also for canning. The aesthetic effect of the growing Beans is good and if the crop is kept well picked more flowers will appear followed by a second crop, not so prolific as the first to be sure, but just as good eating. I think Beans grown in the frames have a better flavor than those from the garden, the speedy growth giving a tenderness and a "bouquet" missed by the usual slow development.—Ethel Anson S. Peckham, *Davenport Neck, New Rochelle, N. Y.*

Sweet-Peas Till Frost

To the Editors of The Garden Magazine:

MOST people admire Sweet-peas and would grow them but for the fact that the vines become dry and brown during the hot weather of July and August. With the right kind of planting and a little water during the extreme heat I have been able to keep the vines green and blooming until frost.

Before planting, and that should be early March or possibly April, dig a trench eighteen to twenty-four inches deep and twelve or more inches wide. In the bottom of this put three or four inches of manure, for Sweet-peas require very rich soil. Then add the dirt and mix as well as possible, filling the trench to within six inches of the level of the ground. The seed should be planted at this level in drills an inch deep and two or three inches apart. Two rows will be enough if the seed is planted thickly, at least one seed every inch. If the rows are more than three inches apart the plants will not start up the rack as easily. The seed should be covered lightly and the ground not allowed to bake, for Sweet-pea plants are tender.

When the plants come up and are two inches high begin filling around them with dirt. This is a tedious job and can only be done slowly and carefully by hand. The easiest way for me is to use a trowel and fill in around only a few plants at a time while I hold them upright. If the dirt is thrown with any force and directly on the plant it is broken and dies. After this first filling, since the plants are a little stronger, I let them grow four or five inches high before filling around them again. Repeat until the soil is level with the ground. This method, as you can readily see, gives each plant a very long root system which will extend down to moisture for the dry season.

Get the rack up, or whatever means of support you use, as soon as the vines are level with the ground for the sooner this is up the easier it is to train the Sweet-peas upright. If the rack is

SWEET-PEAS TILL FROST

Planted and tended with care, Sweet-peas flower the season through on fresh green vines at Edgewood Farm, the Iowa home of Mrs. Arney

up before the vines begin to branch out, with a little handwork you can get them to start directly without running along the ground. I like four-foot chicken wire best for a support and each fall I take it down and store away until the next spring. There must be enough posts to keep this wire tight, and brace wires and stakes are needed at each end.

For two years I let my work with the Sweet-peas stop at this point and the vines went through the dry season but did not bloom any during that time. But for the last two years I have added grass clippings constantly, sifting them carefully around the roots every week, until there is a mulch four or five inches thick by August. Straw may be used but one has to be careful to work it in around the roots.

With this kind of culture the blossoms are much larger and finer and the stems are six and eight inches long. Although the vines may not produce many flowers during the dry season they will live through and when the fall rains come the blossoms are as fine as in the early summer.

I never gather Sweet-peas except by cutting with scissors. Also, I watch for the seed-pods that form very quickly and keep those clipped off, for the blooms will cease if any are allowed to go to seed. —Agnes Dunshee Arney, *Edgewood Farm, Albion, Iowa.*

An Alluring Reward in Zinnia Culture

To the Editors of The Garden Magazine:

FOR unequivocal beauty in the Zinnia garden none of them equals Golden Pheasant, surely. It belongs to that remarkable new and distinct class of Zinnias known as Giant Picotees and is unsurpassed for richness of brilliant tones. Because of just this, it is an ideal flower

for home plantings, either for borders, for groups, or for more elaborate effects still, in any garden design. The quality of these beauties is soon recognized and one may easily arrange to have them blooming from early summer till very late, since they are quite as hardy, and quite as simply and readily grown as the old varieties of Zinnia. As cut flowers they will brighten the library with their rich coloring many days after frost cuts them down out-of-doors for they are very lasting indeed.

I planted mine outside just as early as the weather would permit, and they came popping up presently—strong, sturdy, dignified, and beautiful, they seemed to laugh at the weather, of whatever kind, continuing to flower through October. Though, naturally, the choicest, largest blossoms presented themselves early in August—of a rich deep orange, with clear, warm maroon tips—the delight of all who saw them and a dependable source of pleasure to me. They certainly have a bright future, for methinks, when better known still, they will almost, if not altogether depose the time-honored stand-bys known to our grandmothers as "Youth and Old Age."—GERTRUDE SHOCKEY, *Georgetown, Ohio.*

"Not so Bad as I Seem"

To the Editors of THE GARDEN MAGAZINE:

THE Giant Spiderplant (Cleome spinosa), sometimes called Spiderflower, is an old-time annual that seems to be not very highly regarded, perhaps in part because of its repulsive common name. The usual descriptions say that it grows to about 3½ feet, but my plants are 7 and 8 feet tall, began to bloom in July, and bid fair to keep it up until frost. At the tip of each stalk is a cluster of odd-looking flowers showing three colors—the swelling buds and the just opened petals a deep pink (Ridgway's "mallow purple"), the petals that are a day or so old a lighter hue ("mallow pink"), and the still older petals snow-white. This cycle of change lasts only two or three days for the individual flower, but the cluster always has some flowers in each stage, and the three colors together give an indescribably fresh and lively effect. The buds keep appearing in succession, apparently from an inexhaustible source, at the tip of the stalk, which pushes itself up and up as the season advances, until on the 8-foot plants the flower cluster at the top is 3 feet or more above the oldest seed-pod on the same stalk. Although so tall, the stalks are sturdy and have stood without staking through several fierce downpours. Besides the main stalk each plant has a number of side branches, and each of these has its terminal flower cluster.

The most striking peculiarity of the flowers consists of the six long threadlike stamens, which extend far beyond the petals. As the slender bud begins to expand, these stamens, their anther ends held tight by the folded petals, gradually bulge out like the curve on a letter b, until finally the bud relaxes, the pink stamens suddenly one by one snap out free and stretch in all directions, and above them the four spoon-shaped petals spread themselves like a fan. As the pistil is only half an inch long at this stage and the anthers are so far away from it, perhaps the stamens are thus held imprisoned in order that self-pollination may be accomplished before the flower opens, though undoubtedly humming-birds and bees cross-pollinate it to some extent.

These stamens probably suggested to the unpoetic genius who christened this flower the legs of the arachnoid insect that, however wonderful the web she weaves, is regarded by most people with aversion. In the page of "sentimental philology" which the editors of the Standard Dictionary say may be "amusing if not instructive" the meaning attached to the Spiderflower is said to be "Not so bad as I seem." Perhaps the originator of this sentiment had in mind the handicap of the ugly name—at any rate, I suggest that it is time this odd and really beautiful flower was relieved of such a handicap. Why not use the botanical name Cleome (cle-oh'me), which is easy to pronounce and euphonious?

I started the seeds in a box in the spring and set the small plants out in May in fairly rich garden soil 15 to 18 inches apart where they get the sun about two thirds of the day. To these three things—good soil, plenty of room, and sufficient sunlight—I attribute the fact that my plants have been so much better than I expected. Almost every gardener can command these requisites, and if they are provided, I predict that indifference will give way to admiration.

Cleome is a native of the tropics, but is found growing wild as an escape from cultivation in many places as far north as southern New York. As each plant will produce thousands of seeds, it is not strange that volunteers have been followed by permanent residents.—BERNARD H. LANE, *Washington, D. C.*

ZINNIA GOLDEN PHEASANT

A wonderful flower of the Giant Picotee type, rich orange with maroon tips, rising on a stiff strong stem high above the foliage and measuring 7 or more inches in diameter (see accompanying description)

SPIDERFLOWER (Cleome spinosa)

An oldentime annual of considerable interest that has suffered the handicap of a somewhat repulsive name. This photograph (taken July 25th, 1923) shows transplanted volunteer plants 4–5 ft. high which continue to bloom till frost and probably grow to 8 ft. or more. Garden of Mr. Bernard H. Lane, Washington, D. C. (See also page 43 of this issue)

Jokers Among the Plants

To the Editors of The Garden Magazine:

ALL well organized communities possess a gas plant furnishing light and heat to those who will pay for it. We gardeners may have a plant that will give us gas without cost to its owner if he knows how to operate it. This interesting plant is known botanically as Dictamnus albus and bears the common names of Burning-bush, Dittany, Fraxinella, and Gas-plant. It took me more than twenty years to learn how to light it and cost a small fortune in wasted matches. All literature on the subject up to the second edition of Bailey's Cyclopedia seemed to use one phrase: "It is said that a lighted match applied to the flowers will produce a flame." The phrase is misleading, it will not light the gas, as the flame of the match does not reach the gas that is emitted by and hugs closely to the main flower stalk around which the flowers are clustered. This gas is very volatile and easily dispersed by the winds. On quiet, sultry evenings it clings to the main stem and does not reach out as far as the flowers which are borne on peduncles an inch or so long. Here is the secret: apply the lighted match close to the main stalk immediately under the lower tier of the flowers and a flame an inch long and as wide will run up the stalk with a hissing sound—a warm, sultry night affords the best results. This plant prefers full sun, is long-lived, and dislikes disturbance.

Another interesting native plant is the Physostegia virginiana, commonly called the False Dragon-head, but which I call the Obedient Plant, as it is the most obedient member of my garden. Its flowers are arranged upon the main flowering stalk in four longitudinal rows. For illustration I will assume that the rows correspond with the four points of the compass. You can push any flower in the north row to the right, and it will take its place among those in the western row and stay there. If pushed to the left, it becomes one of the eastern row. The one pushed to the west may be pushed back and placed in the eastern row—can any gardener ask for greater obedience?

The possession of a garden affords unlimited pleasure and can also afford a little fun. I grow a few plants of the Mimosa pudica, the Sensitive Plant. The foliage of this plant, when touched, shows its sensitiveness by immediately folding up and the branches apparently wilting down. Why it does this I do not know. When there is a young lady among a group of visitors I request her to touch the foliage, saying: "If it acts queerly it shows that you are in love." She stoops, touches it, and then blushes—how true is its prophesy I cannot say. In common with some others this plant closes its foliage at night. An experimenter potted a plant and placed it in a closed box having an electric light in it. The interior of the box was kept dark during the daytime and the bewildered plant didn't know what to do. It knew it was time for daylight and opened its foliage, but finding it dark, closed it again, and was just as much bewildered when the box was illuminated at night. The plant was sleepy, but it was not dark as it should be. Finally, after a few days the plant accommodated itself to circumstances and slept all day and opened its foliage at night.—W. C. Egan, *Highland Park, Ill.*

Some True Shade Plants and Other Perennials

To the Editors of The Garden Magazine:

I SHOULD like to add my observations upon the perennial Bellflowers to those of E. Herrick in an earlier issue. I also find them true shade plants. [Some interesting and authoritative comment on "Hardy Flowering Plants for Shaded Places" will be found on pages 195–197 of the last May issue.—Ed.] Very few of the plants so advertised will come up to mark in the shade. The most important species I should consider C. medium, C. carpatica, C. lactiflora, C. persicifolia. The first being a biennial, is an infernal nuisance. Besides, like many of the family, it frequently sulks over till the third year. Persicifolia and pyramidalis must be started early from seed if you hope them to bloom the second year. Pyramidalis is not dependable in the garden and generally dies out after blooming. English gardeners propagate it by root cuttings, but I'm willing to concede a great deal to climate. Persicifolia blooms magnificently in the first blooming. (I dislike all the double varieties, but that is a matter of predilection). The second blooming is interspersed with dead flowers and seed-pods, and I prefer to cut the stalks to the base. It will then send up a few spindling stalks and resemble a second rate carpatica. The clumps spread rapidly and run out if not transplanted—which they resent. Lactiflora has the large fleshy roots of a Platycodon, and comes up in the same way, rather late in the spring. It is the most persistent bloomer. I consider it practicable. Its color varies from palest blue or lavender to darker shades of the same. You must sow the seeds under glass as the newly germinated seedlings are fairly microscopic. But they grow rapidly, and for all I can see the roots get larger and more prolific from year to year. Carpatica is the most practicable Bellflower, glomerata is too purple, so is latifolia macrantha. The latter is a plant that requires no attention beyond cutting off the large seed-pods. Alliariaefolia is quite ugly. Trachelium is an ugly shade and insignificant in aspect. The same will do for Grosseki. Both will survive persistent efforts to eradicate. Other species have left no impression on my memory.

Allied to the Campanulas is a rare Bellflower, the so-called common Platycodon. It is one of the last plants to come up. It ties with a sort of little white Bellflower, Nierembergia rivularis, but is not as late as Eupatorium coelestinum. Platycodon also begins to bloom immediately and is rewarded for these immature efforts by being thrown out. In fact, it really doesn't amount to anything for at least three years and doesn't acquire its full stature for about eight or ten. I insist that it is a rare plant.—J. H., *New York.*

What's Eating the Rhododendrons?

To the Editors of The Garden Magazine:

CAN I get any information concerning the mysterious, apparently nocturnal insect that reduces my Rhododendrons, Azaleas, and Laurel to so much lace? Oddly enough no one else seems to be afflicted but myself. I am constantly visiting the large nurseries and immense private estates where this class of plants is grown by the thousand, but nowhere have I seen evidence of this destroying pest.

Perhaps it is a newly imported one that got through Quarantine 37. If so, goodbye to our mountain slopes of Laurel and our forests of Rhododendrons and our Azalea gardens. I have sprayed with almost every known spray without effect. Leaves white with arsenate are quite palatable to this invisible insect. It prefers those nearest the ground and works from the underside. I am trying to catch one by smearing the leaves with Tanglefoot, but am as yet unsuccessful.

Last summer a new pest attacked the Lilacs in many gardens hereabout. Patient watching discovered an immense yellow-jacket or wasp, considerably bigger than the biggest bumble bee. These wasps girdled the smaller branches, destroying quite a few bushes. I've got this fellow's name, but not his number yet. What can one do with the girdling insects?—Julian Hinckley, *Long Island.*

—You no doubt have an epidemic of the Rhododendron lacewing fly. Have you tried spraying the plants immediately they have flowered with fish oil soap, sometimes called whale oil soap? Wilson's plant oil, used one to fifteen gallons of water, will also do the trick. The underside of the leaves is the important place to get the spray material, especially on the lower leaves. We are not acquainted with the "huge yellow-jacket" that girdles the branches of your Lilacs.—Ed.

Who Knows These Mid-Western Wild Flowers?

To the Editors of The Garden Magazine:

WHEN I came to this place I didn't expect to find any wild flowers as this locality has been subject to overflow for centuries until the recent perfection of the levee system, but I now have in my garden the following, which I have collected in this vicinity: Aspidium acrostichoides, Asplenium trichomanes, Botrychium virginianum, Woodwardia angustifolia, and a Polypodium that confines itself to trees.

Besides the above Ferns, I have the following plants which I am unable to identify:

A rough-stemmed perennial vine, rather small, ovate, glossy, opposite leaves; 2 perfect and 2 rudimentary on each side; climbs to 50 ft., and in May bears a profusion of flowers that more nearly resemble those of a Foxglove than anything else in size, shape, and even to the mottling in the mouth.

A rough-stemmed perennial vine with alternate, large, lanceolate leaves; climbing to 30 feet and bearing in April and May many panicles of wisteria-like flowers of a dark mauve color.

An Iris, leaves $\frac{3}{4}$ in. wide and 18 in. long; flower stalks 2 ft. high; flowers 3 in. in diameter, deep terra-cotta, veined dull crimson. Both standards and falls lie flat like a Japanese.

A shrub 2 to 8 ft. high; glossy, dark green leaves in groups of 5, bearing in April a terminal spike of some 100 tubular, fiery red flowers that bear no resemblance to the pictures of Azalea calendulacea, having scarcely any flare at the mouth; about $2\frac{1}{2}$ in. long and the diameter of an ordinary lead pencil.

If you, or any of the readers can identify these, I will be very grateful.—W. A. Bridwell, *Dumas, Ark.*

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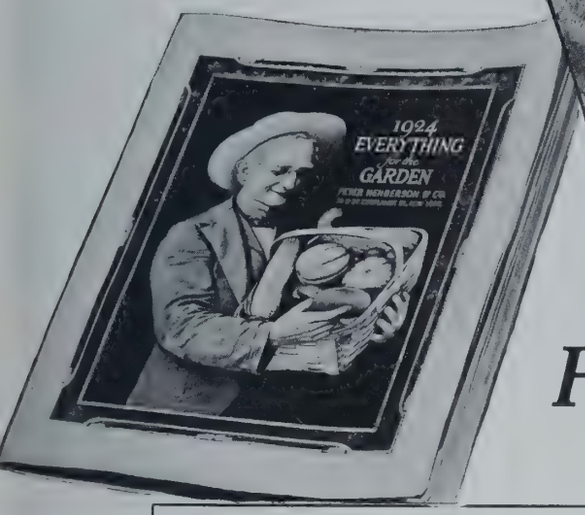

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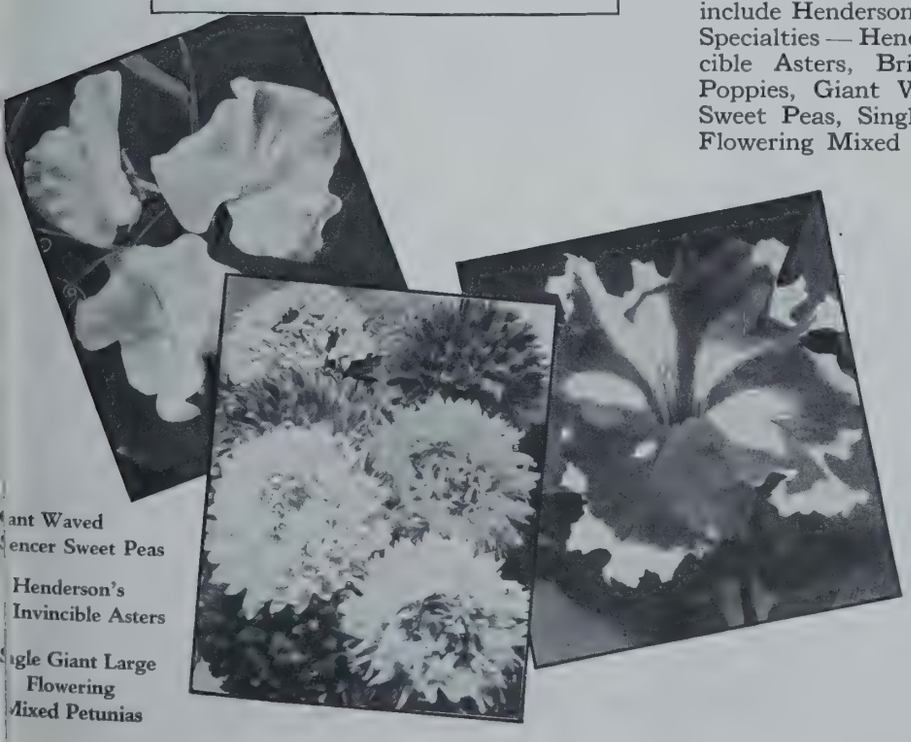

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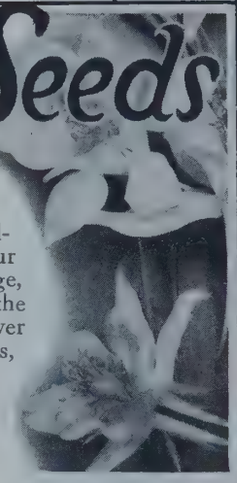

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MORRISVILLE PENNSYLVANIA
which is 1 mile from Trenton, N.J.

During the long reign of the Tudors, greater luxury became general among the English nobility. ¶ By 1650 the Renaissance had fully flowered and spread its culture throughout Europe. ¶ In admiring the Tudor treatment here shown one sees the Gothic character of that time evolved out of the Northern temperament, enriched and brightened by Southern influences. ¶ Today this gracious spirit is recaptured by our community of master cabinetmakers at historic Fort Lee atop the Palisades.

The Galleries of Suggestion

THE successful room not only harmonizes with its architectural background but leaves the impression that it was created to be lived in.

Thus, the planning of any interior is a matter of discriminative selection rather than extravagant expenditure—which may account for even the simplest room remaining an unforgetable picture in one's memory.

The suggestions freely offered to visitors; the complete Decorative Service; the reasonable attitude toward cost—all are essential features worthy of consideration, and a stroll through the galleries should be very convincing.

New York Galleries

INCORPORATED

417-421 MADISON AVENUE

Forty-eighth and Forty-ninth Streets

Furniture Reproductions Decoration

Plants of a size to bear an abundance of flowers *Immediately!*

I have been asked on what basis I justify the price of one dollar per plant for my Japanese Irises when the "average price" is 35 cents!

The answer is this:—

I offer you a *Super Plant Product*, finished plants that eliminate waiting for results. These plants have a fine fibrous root system due to transplanting. They will take hold at once, and bloom the very first season. Set out during March (where possible) or early April, they are bound to bloom next June.

The varieties are all named. They will come to you properly labelled and in colors that blend well. They will be packed with care, so as to guarantee arrival in first-class growing condition.

I invite orders from those eager for prompt garden results.

By Mail, Postpaid and Insured

1 plant, $1.00; 5 plants, $4.00; 10 plants, $7.50; 100 plants, $50.00

Ask for illustrated descriptive booklet giving full details about these magnificent Japanese Iris—It's free of course.

American Bulbs—Superior Quality

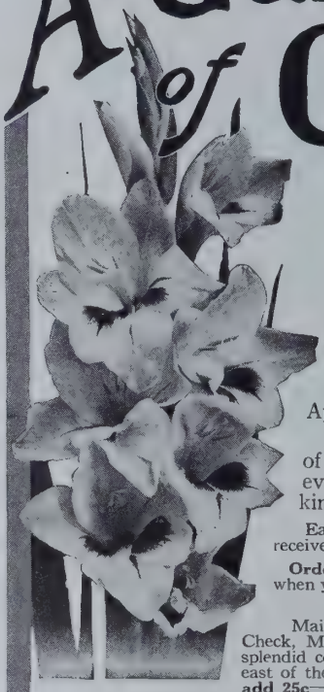
I also specialize in Gladiolus of the better kinds—list gladly mailed on request.

As the largest grower of American-grown Daffodils, I invite your consideration of a bulb product bringing *earlier* flowers, by ten days to two weeks—than can be expected from Dutch bulbs.

GEORGE LAWLER

Gardenville **Tacoma, Washington**

A Garden Full of Gladioli for $2.00



The Gladiolus is one of the most satisfactory flowers grown and there is no reason why every family cannot enjoy this grand flower—it is as easy to grow as the potato.

Bloom from July to frost if you plant a few bulbs each month from April to July.

For **Two Dollars** we will send **50 Bulbs** of our **Grand Prize** Mixture, which covers every conceivable shade in the Gladiolus kingdom.

Each year we sell thousands of these bulbs and have received numerous testimonials as to their merits.

Order Your Bulbs Now, so as to have them to plant when you begin making your garden.

Simple cultural directions in package

Mail this advertisement, or present at our store, with Check, Money Order, Cash or Stamps, and secure this splendid collection, sent prepaid to any point in the U. S. east of the Mississippi. **For points West and Canada add 25c—($2.25).**

Our 1924 Spring Seed Annual sent on request

Stumpp & Walter Co **30-32 Barclay St. New York City**

Sixty-Six Perennial Joys for 10 Dollars, Delivered

The plants themselves (at an average cost of 17c) constitute 66 Reasons why you should start your hardy border or add to it—NOW—this month. Or I will welcome order for any item below, at the uniform rate of 25c each, $2.50 per dozen, except where quoted otherwise.

But Here is my Special Offer:

I will send, prepaid, 10 Mixed Hybrid Delphiniums. From pure white through many shades of blue and purple. 4 to 6 ft. The backbone of the hardy garden; 5 Elizabeth Campbell Phlox; 5 Siebold Phlox; 5 Miss Lingard Phlox; 5 Persian Daisies; 5 Giant Daisies. (Pyrethrum uliginosum.) Covered with white daisies during late summer and fall. 3 to 4 ft.; 5 Achillea, the Pearl; 5 Baby's Breath; 5 Hemerocallis assorted; 5 Butterfly weed (Asclepias tuberosa) Brilliant orange flowers during July and August. 5 Choice Iris; 5 Oriental Poppies, and 1 Bleeding Heart; 66 plants in all, including planting directions and plan of arrangement for $10.00 prepaid.

Phloxes—Elizabeth Campbell—Light salmon pink. Siebold—Orange scarlet, crimson center. Miss Lingard—Early white with delicate pink eye.

WM. TOOLE, SR.
With His Delphiniums

Pyrethrum Roseum Hybridum (Persian Daisies)—Fernlike foliage and beautiful flowers ranging from pure white through shades of pink to deep crimson. May to July.

Achillea (The Pearl)—Beautiful in the border and good for cutting. Button-like flowers. June to August.

Baby's Breath—Tiny white flowers giving mist-like effect.

Hemerocallis—Yellow Day Lily.

Iris—A multitude of new shades and colors. Beautiful when in flower. Foliage effective all summer.

Oriental Poppy—Scarlet.

Bleeding Heart (Dielytra spectabilis)—Strong plants, 50c each.

My booklet "Hardy Plants for the Home Garden" gladly mailed FREE.

W. A. TOOLE

Garry-nee-Dule **Baraboo, Wis.**

It's the *LAWN* that *Makes* the Estate!

Enter any place, look at the lawns and their condition will give you a good idea of the estate's management. Well-kept Lawns are the estate's greatest asset, a suburb's greatest attraction. Beautiful, smooth, velvety Lawns are generally the result of careful mowing with a good machine. Acres and acres of America's finest Lawns are kept in condition with ***"PHILADELPHIA"*** Mowers.

THE GENUINE

"PHILADELPHIA" 3 Styles "Eagle" Motor Mowers

18 Styles Hand Mowers
4 Styles Horse Mowers

Sold by Progressive Dealers *The World Over!*

Fifty-five years ago we perfected the first side-wheel lawn mower. Since then ***"PHILADELPHIA"*** leadership has been maintained on the basis of the broadest *guarantee* ever made: Every machine regardless of model or size is guaranteed to be free of defects in both workmanship and material.

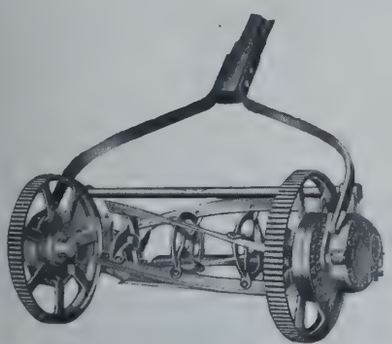
"PHILADELPHIA" Mowers sold many years ago are still rendering good service. Constant improvements and adherence to high ideals in manufacturing make the ***"PHILADELPHIA"*** of to-day the easiest running, longest lived, highest grade Mower in the world's markets.

Your dealer will be glad to show you ***"PHILADELPHIA"*** points of superiority. In the meantime we shall be glad to mail you descriptive circulars of just the machine that interests you. Please write to-day and mention this publication.

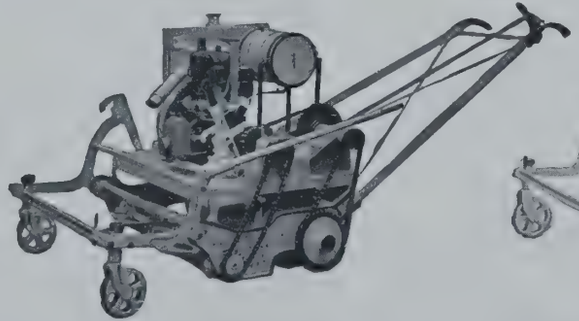
The Philadelphia Lawn Mower Company

31st and Chestnut Sts. **Philadelphia, Pa., U. S. A.**

The Original People in the Lawn Mower Business



Styles "Graham" and "A"
All Steel, practically indestructible



30 in. Walking Type
Motor Mower

30 in. Walking type 30 in. Riding type 40 in. Riding type
Combination ROLLER and LAWN MOWER

A Strictly Personal Message

AS YOU KNOW, creating new and better Dahlias has been my life's work. Those of you who know my Dahlias will recall the sensations created by the various groups of Dahlias I have introduced during the last ten years. When I first offered the Indian Family, I thought we had traveled a long ways toward perfection. But the Loma Family, the Fighting Ten, the groups of wonders known as the Sea Lions, and the Five Great Lakes, Ocean Group, all showed further advancement.

And now I am going to call your attention to the magnificent creation pictured above—

Our Country

The New Stillman Seedling No. 2458

Printers' ink is utterly inadequate to portray the wonderful color combination of this new decorative. The main color is a deep purple, the florets are heavily tipped with pure white. The color runs always uniform and its truly mammoth size causes it to be the outstanding exhibition variety introduced in recent years. Price $50.

Other Outstanding New Seedlings of Recent Introduction

Biltmore. No. 2008. A most beautiful combination of bright, rich carmine and white ever combined in Decorative. Price, $5.00.

Murray Hill. No. 2022. New Peony-flowered of a beautiful rich shade of purple. The flowers are simply huge in size. Price $5.00.

Ruth Van Fleet. No. 1451. Clear, light canary yellow. Hybrid Cactus. The stems are extra long, often measuring 16 inches. The flowers are extremely large and held erect on stiff stems. Price, $2.00.

Lady Evelyn. No. 2539. A beautiful light pink Cactus, nearly white at base of florets. Price, $5.00.

Justice White. No. 2196. Bright carmine with each petal nearly half white at tips. A very large fluffy flower on good strong stems. Price $5.00.

Head of the Nation. No. 2209. The largest, incurved, claw-shaped true cactus Dahlia in existence. Color, rich purple with magenta overcast. Price, bulbs or plants, $75.00 each.

Caruso. No. 2132. This mammoth Hybrid Cactus is certainly a wonder. Color, yellow, pink and salmon, blended in a most unique manner. Price, $15.00.

Silva Quarta. No. 2264. An entirely new species of Show Dahlia, pure lavender and of a most unique form. Really a double quilled Show Dahlia of mammoth size. Price, $25.00.

Dahlias of Distinction

Is the title of my new catalogue, a copy of which will gladly be mailed free upon request. It will be a pleasure to hear from you by an early mail.

GEO. L. STILLMAN, *Dahlia Specialist*

Box C-24 WESTERLY, RHODE ISLAND

BLUE sky, fresh air, bright sunshine these are only a part of the joys of living in the suburbs or country. If you want to get the very most out of life, have a garden with flowering shrubs, roses, big shade trees and evergreens.

It's a Waste of Time to Wait for Little Trees to Grow Up

Hicks Nurseries have big trees—10, 15 and 20 years old—that have already grown up. They can be moved to your place this spring, and will give foliage and shade in summer. In January and February we moved over 50 big trees from the nursery to *one place* on *one order*.

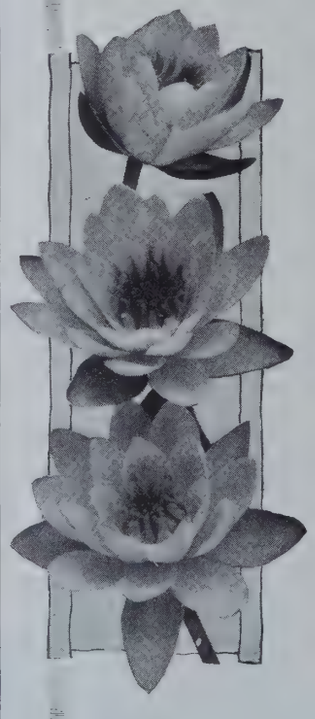
No matter whether you want one tree or a hundred; whether you want shade trees or evergreens, write us.

Send for our various booklets—"Home Landscapes," "Winter Planting," and others.

HICKS NURSERIES

Box M Westbury, L. I., New York

Tricker's Water Lilies



The Largest Grower of Water Lilies in America

To know these wonderful flowers you must have them in your own garden—and you can have them just as easily as you have other flowers. A tub or a pool, a little soil, sunshine and water—that's all they need. Then you can watch the buds burst into lovely blooms, like rosettes of white, rose, pink, deep red, lavender and blue.

Do you know that some Water Lilies only open at night? That some are perfectly hardy, and others are tender? That some are fragrant and some are not?

My 1924 Catalogue

shows these differences, pictures several varieties in natural colors, tells how to make a pool, gives advice about varieties, and full cultural directions. Write to-day for a copy of this valuable booklet.

WILLIAM TRICKER

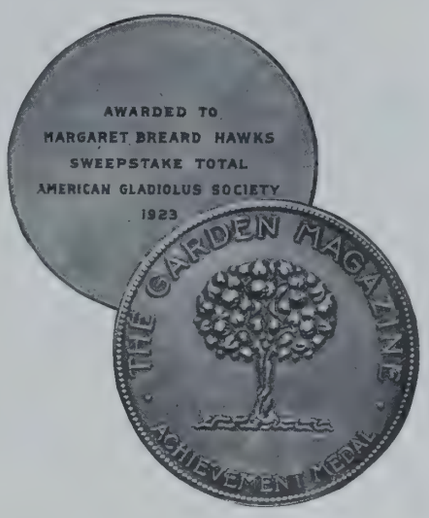
661 Forest St., Arlington, N. J.

TO ALL OUR FRIENDS: — Just before this advertisement was mailed to The Garden Magazine, fire entirely destroyed Hawks Block, Bennington's largest office building, where our advertising and clerical departments were established. A large section of our mailing list—several thousand names of customers and those requesting catalogues—was lost. We would, therefore, greatly appreciate letters or cards from all those with whom we have had any correspondence, in order that we may revise our lists at the earliest possible moment. Orders received this season need not be repeated, as these were at Elmwood Terrace where our bulbs are stored, a mile from the fire.

Elmwood Terrace

CHAMPION GLADIOLI

"The Perfect Bulbs"



OUR latest triumph—at the 1923 International Show of the American Gladiolus Society—was THE GARDEN MAGAZINE ACHIEVEMENT MEDAL, that coveted trophy signifying championship of the year's largest exhibition for the highest number of points won. With less than half our exhibits staged, awards to us totaled nearly double those of our nearest competitor. And among our other choicest trophies are the KUNDERD GOLD MEDAL for the largest and finest collection of Kunderd originations, and the BURPEE CUP, at the St. Thomas international show, for "the finest of all varieties." Guaranteed true to name and exactly as represented, we assert these Vermont-grown bulbs to be just what the awards of foremost judges have proved them for several years—the best obtainable at any price, producing hardier, more beautiful blooms in any climate.

Picturing the glorious Marshal Foch display and its award—the Burpee Trophy — to Elmwood Terrace Gardens for "The Finest of All Varieties." Sensation of the big shows. A magnificent production. Delicate salmon pink deepening toward edges and brighter in the throat. To early applicants, only 25c. each. $2.50 per dozen.

Our selections from the creations of the world's greatest hybridizers have received the invariably unanimous endorsement of the foremost connoisseurs. In our ideal soil and climate, and through our own perfected cultural methods, we have strengthened and improved this stock until its supremacy is assured in any competition.

The quality of ELMWOOD TERRACE strains cannot be surpassed or duplicated from any other source.

To those determined upon supreme gardens in 1924, we recommend immediate placing of orders.

Our Own Special Introductory Collection of Two Dozen Splendid Bulbs—Worth $3.00 to $5.00—Only $1.50 Postpaid. 100 Bulbs $5.00.

Write to-day for Our New Free List of 100 Varieties

Margaret Breard Hawks
ELMWOOD TERRACE
Bennington, Vermont

Michell's Asters—California Giant

A wonderful new variety with long, sturdy stems often 2 to 2½ ft. Immense flowers, fine for cutting. DARK PURPLE, DEEP ROSE, LIGHT BLUE and the new shade, PEACH BLOSSOM, all gorgeously rich, at 25c per packet (if bought separately).

SPECIAL OFFER One packet each of the above 4 colors, for .... **85c** (Value $1.00)

See colored illustration of these asters in

MICHELL'S
1924 SEED BOOK

Describes and illustrates the best in Flowers, Vegetables, Bulbs and Plants.

It is not "just a catalogue," but a helpful book of 192 pages, complete and correct in description and containing beautiful color plates.

Includes every proved aid for the flower and vegetable garden, dependable fertilizers and insect destroyers, garden, farm and greenhouse tools and implements and poultry supplies of all kinds.

Write to-day for a copy of this different kind of Seed Book.

A Post Card will do

Headquarters for Lawn Grass Seed

Close specializing for over thirty years has enabled us to develop a perfected mixture for every lawn or golf course condition. Put your Grass Seed problems up to us. We can help you solve them.

HENRY F. MICHELL CO.

520 Market St. **Philadelphia, Pa.**

Colorful Spring Is Rapidly Approaching!

Icy Winter will soon be retreating before the genial warmth of Spring. Your garden calls.

You will plant dahlias and gladioli, of course, and you will want the finest.

You can have true "show flowers," if you choose from our 1924 Blue Book of dahlias and gladioli, containing only those varieties that have proven their superiority in our World Test Gardens.

Order now. If you have not already secured your copy of our 1924 Blue Book, write for it. Get ready for spring planting.

(*Field-grown bulbs and tubers guaranteed to be true to name.*)

Carl Salbach, *Grower*

6086 Hillegass Ave. **Oakland, California**

Everblooming Hybrid Tea-Scented Roses

All our roses are strong, field-grown, two-year-old plants and will flower freely this season, from June until frost.

We have one hundred and thirty varieties to select from.

SPECIAL COLLECTION	Each
British Queen, white	$1.00
Columbia, pink	1.25
Dorothy Page Roberts, coppery-pink	1.00
Lady Alice Stanley, deep rose	1.00
Lieut. Chaure, crimson	1.00
Los Angeles, flame-pink, shaded gold	1.50
Madame Butterfly, pink, shaded apricot	1.00
Madame Edouard Herriot, terra-cotta	1.00
Mrs. Aaron Ward, yellow	1.00
Mrs. Arthur Waddell, scarlet	1.00
Ophelia, salmon-flesh	1.00
Sunburst, orange-copper	1.00
	$12.75

The above Special Collection of 12 varieties for $11.50

Our Garden Annual for 1924 mailed free upon request

R. & J. FARQUHAR COMPANY

6 South Market Street **Boston, Massachusetts**

Styles for every room in the house

SANITAS
MODERN
WALL COVERING

Ask your decorator to show you the new styles of Sanitas Modern Wall Covering.

Samples of Sanitas, and a booklet telling about Sanitas and illustrated in full color, will be sent on request.

Walls decorated with Sanitas do not need constant "doing over"

THERE are almost as many ways of treating walls as there are walls to be treated—so many opportunities for the use of color and design appropriate to the purpose of the room and harmonious with its furnishings.

To make the most of these opportunities a great deal of thought should be given to getting just the right effect, and Sanitas Modern Wall Covering offers such endless adaptability, in color, pattern and treatment.

But the result should be permanent, for who wants a beautiful wall decoration that must be subjected to periodic renewals? A genuinely lovely wall treatment is a thing of beauty and permanent satisfaction, not lightly to be dispensed with and "done over" every year or two.

Sanitas Modern Wall Covering is made on cloth, painted in durable oil colors, ready to hang. It can be applied on any flat surface, new walls or old, plaster or wallboards, and does not crack, tear, peel, blister, or fade. Best of all, it can be kept clean and fresh by occasionally wiping with a damp cloth. Sanitas is an investment—not an expense. Styles for every room in the house.

Enamel Finish

plain colors and tile and mosaic effects, for kitchens, bathrooms, laundries, etc.

Flat Finish

plain tints, that can be hung as they come, stenciled, frescoed, or Tiffany blended.

Decorative Patterns

floral designs and reproductions of tapestry, leather, grass-cloth and fabrics.

THE STANDARD TEXTILE PRODUCTS CO.
320 BROADWAY, NEW YORK
DEPT.—30

PAINTED FOR MURPHY VARNISH COMPANY BY EDWARD A. WILSON

A Murphy Finish is not only Permanent — It is Permanently Beautiful

A MURPHY Finish for your prettiest bedrooms, for your hardwood floors—another for the fine-grained woodwork in your library, drawing-room or entrance hall. A Murphy Finish designed expressly to add beauty and character to your walls and ceilings. A handsome, long-wearing Murphy Finish for every interior surface throughout your house.

Take the Murphy Muronic Enamels. These newly developed enamels are fine for wood or plaster walls. They come in white, ivory and gray. With the use of pigments, other gracious tints are readily secured.

Supplied in gloss or semi-gloss, as you prefer. Competent decorators are always glad to work with Murphy Finishes.

Murphy Varnish Company, Newark, N. J. *and* Chicago, Ill.

Murphy Varnish Company, Limited, Montreal, Canada—Successor to The Dougall Varnish Company, Limited

A Unique Book for Only 50¢

We are publishers of "THE BOOK OF DECORATION," well known among professional decorators. Your check (or cash) for half a dollar will bring this book by return mail. With it we will send free a new book on Washington's "Home Sweet Home"—"A NEW NEIGHBOR TO THE WHITE HOUSE."

SAVE THE SURFACE AND YOU SAVE ALL

THAT hardware for your home—once looked upon merely as part of the "working equipment" of a house—can be made a vital part of the decorative scheme has been ably demonstrated by Russwin artisans who create the beautiful designs for Russwin Hardware.

For more than eighty years the name Russwin has been a guarantee of security, trouble-free service and unrivalled beauty of design.

And these features, which have led to its installation in many of America's finest buildings, make Russwin preeminently the hardware for your home.

"To Russwin-ize is to Economize—
The Economy of the Best"

Russell & Erwin Manufacturing Co.
The American Hardware Corporation, Successor
New Britain, Connecticut

Hardwick design School, Elizabethan

New York Chicago San Francisco London

Complete Satisfaction in bathroom luxury is only achieved by Fairfacts Bathroom Fixtures built in your walls.

BATHROOM Fairfacts FIXTURES

Fairfacts Fixtures

BUILT IN YOUR BATHROOM WALLS

Above is pattern No. 540

The Modern Floor-Covering for Your Kitchen

In the well-appointed house good taste shows even in the rooms devoted to "service." The rugs one chooses for the kitchen or pantry have to meet the requirements of durability and cleanliness, but they must be attractive, too.

For just these reasons fastidious women select *Gold-Seal* Congoleum Rugs for their kitchen floors—and find them completely satisfactory.

Congoleum Rugs not only wear well but they are particularly easy to clean. Their seamless, smooth surface renders them waterproof and accident-proof as well. Liquids and grease cannot injure them. A few strokes with a damp mop makes them spotless. Moreover, they lie flat without fastening.

In pattern Congoleum Rugs offer a choice of conventional tile and wood-block effects appropriate for the kitchen or pantry, as well as a number of colorful motifs that suggest use in the maid's room, nursery or on the porch.

Gold Seal CONGOLEUM RUGS

Look for this Gold Seal

There is only one guaranteed Congoleum and that is *Gold-Seal* Congoleum identified by the Gold Seal shown above. This Gold Seal (printed in dark green on a gold background) is pasted on the face of every guaranteed *Gold-Seal* Congoleum Rug. It is your protection against substitutes. Look for it.

Note the Low Prices

6 x 9 ft.	$ 9.00	The rug illustrated is made only in the five large sizes. The smaller rugs are made in other designs to harmonize with it.	1½ x 3 ft.	$ .60
7½ x 9 ft.	11.25		3 x 3 ft.	1.40
9 x 9 ft.	13.50		3 x 4½ ft.	1.95
9 x 10½ ft.	15.75		3 x 6 ft.	2.50
9 x 12 ft.	18.00			

Owing to freight rates, prices in the South and west of the Mississippi are higher than those quoted.

CONGOLEUM COMPANY
INCORPORATED

Philadelphia New York Boston Chicago Kansas City San Francisco
Minneapolis Atlanta Dallas Pittsburgh New Orleans
Montreal London Paris Rio de Janeiro

"Hartford-Saxony"

Made exclusively by the Bigelow-Hartford Carpet Company at their mills in Thompsonville, Conn.

This shows the actual thickness of the soft woolen yarns used for making "Hartford-Saxony" rugs. The luxurious pile formed by these strands is three-eighths inch high.

A rug of enduring quality

Whether it is made in the Far East, Near East, or the United States, you can get out of a rug only what the manufacturer puts into it. The life of a rug depends very largely on the kind and quantity of yarn it contains.

The yarn used in making "Hartford-Saxony" rugs is different from that used in any other rug we weave. It is skilfully blended, from the finest wools imported from many foreign countries, to secure the utmost of resiliency and durability.

To be sure of obtaining genuine "Hartford-Saxony" rugs, made of this specially prepared yarn, it is necessary to ask for them by the full name.

"Hartford-Saxony" rugs are made in twenty-seven stock sizes, from 22½ in. by 36 in. to 11 ft. 3 in. by 24 ft., and are carried by most reputable dealers. A small size, 27 in. by 54 in., sells for $14.75; a standard room size, 9 ft. by 12 ft., for $130.00.

If you have any difficulty in procuring "Hartford-Saxony" rugs, write to our New York address and we will see that you are supplied. We will be glad to show you the full line, if you can visit any of our showrooms.

Upon request to our New York office, we will gladly send you, without charge, a sample of the "Hartford-Saxony" fabric, a set of color plates and a beautifully illustrated descriptive booklet.

Look for the name "Hartford-Saxony" woven in the back of these rugs as a guarantee of quality.

Bigelow-Hartford Carpet Company

ESTABLISHED 1825

NEW YORK	CHICAGO	BOSTON	SAN FRANCISCO
385 Madison Avenue	14 E. Jackson Blvd.	69 Summer Street	770 Mission Street

Queen Anne Martin House

Made with 48 rooms for the beautiful martins who colonize. The martins devour mosquitoes! Scientific porch. Pure white and green trims. Of pine, copper roof. 22-foot easy raising pole house 36 x 26 x 37 inches.

$60.00

Sexangular Flicker House

Places with trees should have these houses. The woodpecker family save millions of dollars in trees annually, destroying moths, ants and tree pests. Lovely design. Brown to match tree trunk. Norway pine. 26½ in. high, 12 in wide.

$7.00

Scientific Wren House

It brings the silver-throated wrens! A 4-compartment house satisfying their habit of changing nests for each succeeding brood. Beautiful design, to hang from tree, eaves or elsewhere. Green. Of oak, with cypress shingles, copper coping. 28 inches high, 18 inches diameter.

$7.00

Don't miss the greatest delight of the spring!

DID you ever put up a Dodson bird house just outside the window . . . when, tho chill winds still blew, folks were thinking of spring? And then, heigh-ho, some morning . . . the martins, the wrens, the other song birds arrive. Give them a perfect home! Watch them raise successive broods of little songsters . . . merrily feeding to their hungry young the injurious bugs from your greening trees and garden. Wonderful little birds . . . happy, useful songsters who WORK for us and toss in a song besides!

Without the song birds, all our gardens, trees and crops would be completely destroyed, and even now 12% are lost thru insects every year. That's why we need the song birds, that's why it's our mutual duty to help increase their numbers.

More Dodson houses are sold each year—green and white signs of hospitality. They're sold for a song. They're scientifically correct, and bring the birds back year after year . . . Get started now! Let the houses weather. Good folks everywhere insist on Dodson Bird Houses. Just order right from this page. They come promptly to you, with simple instructions, already to put up . . . Or write to Mr. Dodson!

JOSEPH H. DODSON, Inc.
709 Harrison Avenue Kankakee, Illinois

Mr. Dodson is President of the American Audubon Association and a Devoted Friend of the Song Birds

REAL DODSON BIRD HOUSES SOLD ONLY FROM KANKAKEE BY MAIL

See what the birds eat!

Government research has disclosed the song birds' value to America. See here one bird's daily diet! Just attract the songbirds to your grounds! Dodson Famous Sparrow Trap removes the harmful English Sparrow. 36 x 18 x 12 in. $8.00

Sheltered Feeding Station

To attract the early birds looking for food. This operates automatically, like a weather vane. Always dry. Green, of pine. With 8-foot pole, shelter 24 x 22 x 12 inches

$8.50

Dodson Suet Cake for early birds - 40c lb.

Bluebird House

Bluebirds for happiness, because they are perhaps our most beloved songsters! They are exacting birds; but this house will win them. Put it on a pole up out of harm's way. Green, of pine, 21 in. high by 16 in. diam. With easy-raising 18-ft. pole.

$14.00

FREE

Send for Mr. Dodson's fascinating booklet—"Your Bird Friends and How to Win Them." Forty years' loving study of the birds has completed it. Things you should know about the work of the song birds!

Peaches Are Ripe!

THE thrill that comes with the first ripe luscious peach from your own tree! No other peach looks so beautiful, tastes so sweet and juicy as one warm from the ripening rays of the midsummer sun.

Then every day for weeks you pick the golden harvest and enjoy it served in a dozen ways—fresh, clean wholesome fruit—the best tonic of its kind for little ones as well as grown-ups.

Why not ornament your grounds with peach trees, apples, pears or cherries—all as heavy foliaged as any shade tree—beautiful in their early spring blossoming—generous in their yield of ripened fruit—each in succession filling the table with their rich bounty and giving pleasure as well as health to every member of the family.

Mayo Nurseries Peach and other fruit trees are unequalled in quality with wonderfully developed fibrous root-systems especially grown for quick fruiting. We will gladly advise just which varieties are best adapted to your soil and climate.

Old fashioned delicious blueberries—red, white, yellow or black raspberries—currants on bushes or charming little trees —extra fine (bearing age) grapevines with heavy root systems, and other new and novel varieties of berries are included in our new

1924 Catalogue of Fruit and Berries

now ready for gratuitous distribution. Write for it.

This catalogue does not contain a confusingly large number of varieties but offers a selection of fruit trees and berry bushes which our experience has proved to be the most satisfactory because of their hardiness against climatic changes, prolific yielding, delightful quality of fruit and early bearing.

To those interested in the beautification of their grounds, our Landscape Service will take entire charge of Plans, Plants and Planting.

Mayo Nurseries, Inc.

Nurserymen and Landscape Architects

Executive Offices: 805 Ellwanger & Barry Building, Rochester, New York
Nurseries at Rochester, New York and Southwick, Mass.
Eastern Office: 331 F National City Bldg., Madison Ave. at 42nd St., N. Y. City

BETTY *EASTERN STAR* *EMMA MARIE*

The Original Dahlias of Quality and Distinction

TO YOU who know us, thanks. Your success with DAHLIAS of QUALITY and DISTINCTION is our success. You know Dahliadel Quality and Service. If you do not, a trial order will convince you.

Our Catalogue tells the story of thirty acres of dahlias ten of which are irrigated, 13,000 square feet of floor space devoted to dahlias, 500,000 tubers to fill orders from, and all popular high class varieties.

Plant a Dahlia Garden and let us start you with

Dahliadel Special Collections,

more wonderful this year than ever.

Our catalogue contains illustrations of six remarkable 1924 introductions, and one of the finest assortments ever offered.

A Post Card will bring you our catalogue immediately.

DAHLIADEL NURSERIES
WARREN W. MAYTROTT
Vineland New Jersey

FLOWERING ALMOND

THIS adorable little shrub that in the early Spring flung its dainty tracery of white or rose against the morning sun in our grandmothers' gardens, has for years been practically unobtainable.

This year it is Outpost's good fortune to be able to offer a limited number of plants to its patrons —if they order promptly.

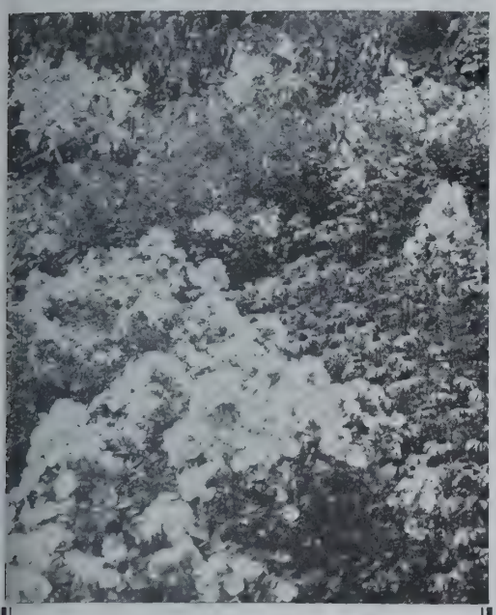
Colors, white or deep rose-pink. Blossoms like tiny roses studded thickly along tall, graceful stems interspersed with slender dark green leaves. 5 to 6 feet at maturity.

Fine, healthy plants, 2 to 3 feet tall

Five for $7.50, 10 for $14.00 or $1.75 each
(postage and packing included)

Outpost Nurseries

Maplewood Road, RIDGEFIELD, CONN.



Roses and Perennials

ROSES, Hybrid Teas, 2 year old, budded on Japanese multiflorum in the best varieties. $10.00 a dozen.

PHLOX, Deutschland, the most brilliant orange-red ever produced in Phlox. $.50 each; $5.00 a dozen.

Elizabeth Campbell, light salmon, changing to pink. $.35 each; $3.50 a dozen.

Jules Sandeau, Early, clear pink. $.25 each; $2.50 a dozen.

Mrs. Milly van Hoboken, large flowers, soft pink. $.50 each; $5.00 a dozen.

Thor, the best Phlox grown, salmon pink, almost white toward center, with red eye. $.35 each $3.50 a dozen.

COLLECTION, 3 each of the above by Parcel Post, postpaid, $5.00.

GYPSOPHILA PANICULATA FL. PL., Double Baby's Breath, Grafted Plants, $.60 each; $5.00 a dozen.

Send for my price list

GEORGE L. EHRLE

Nurseryman and Florist

Bloomfield Road near Allwood Road
Paterson R. F. D. 2

RICHFIELD, N. J.

Richard Diener's "Sierra"—a Ruffled Beauty of finest form

They Come from Farr

Farr's Delphiniums

The bewitching magic of these early or mid-summer perennials is irresistible. Tall, graceful, densely packed spikes of blue flowers illuminate the whole garden.

Farr's Wyomissing Hybrids, from the finest hybrid seed; flowers extra large. $3 for 10, $5 for 20.

AQUILEGIAS, Mrs. Scott Elliott's Hybrids, all colors including the new rose and scarlet shades. $3 for 10, $5 for 20

Better Plants by Farr, our catalogue, describes our garden treasures. It is free to GARDEN MAGAZINE readers—write to-day for a copy.

BERTRAND H. FARR

Wyomissing Nurseries Co.

104 Garfield Ave., Wyomissing, Pa.

Come to headquarters of the choicest "Glads.," matchless Petunias, New Dahlias, etc. I promise to treat you Right!!

RICHARD DIENER

Beautiful Catalogue FREE

RICHARD DIENER CO., Kentfield, Marin Co. California

And at the end of the row—

You simply unfasten the wheelscrew that hitches the attachment to the frame, adjust any other attachment and go right ahead. Diversity of work, different nature of crops, different width of rows—all these annoying little details *cease* annoying the gardener who has as his aid the new *Gilson Combination Outfit* as illustrated below. It consists of a strong wheelframe and attachments for opening rows, closing rows, ploughshare, rake, scuffle hoe and tooth cultivator—

Six Tools for the Price of One!

Easily the greatest value in high grade garden implements ever offered. Ask your dealer to show you the outfit. If he does not carry Gilson Garden Tools, write us and we will see that you are supplied.

Other Gilson Garden Helps

The Gilson Dubl-Duti shown herewith is now recognized as the safest and most effective weeder or scuffle hoe. Creates a perfect dust mulch. Makes every stroke count. Made in 3 sizes as both hand tool and wheel outfit. Ask your dealer.

The Kill-weed Kultivator shown to right is the greatest tooth cultivator on the market. Special cutting edge on teeth "gets" every weed. Comes in 5-tooth and 7-tooth, and 9-tooth style. Available as both hand or wheel cultivator.

J. E. GILSON COMPANY

77 Valley Street, Port Washington, Wis.

The complete Gilson Line embraces:

The Dubl-Duti Scuffle Hoe,
The Kill-weed Kultivator, in both hand and wheel outfits,
The Dandelion Digger,
Grass Edger, various Scratch Weeders.

Instructive Booklet FREE

Gives some valuable facts about cultivating as a means to complete garden success. It will be a pleasure to mail this booklet to every reader of GARDEN MAGAZINE.

"The Lark" Bird-Bath

Designed and priced especially for the medium sized garden or lawn, in excellent proportion and of proper size and depth to suit the feathered folk.

Made of either Crushed White Marble or Granite, as you prefer, by a special process which allows us to fully guarantee all our products to remain beautiful and serviceable through time and weather.

Height: 20", Saucer: 23½" wide, 1¾" deep

PRICE $14.00

Express or Freight prepaid to your town.

Please specify "Marble or Granite" when ordering

THE BARCLAY COMPANY

NARBERTH *Garden Ware* PENNA.

A catalogue of other beautiful Garden Ware sent you upon request

Prindle HUMUS

For the Price is the Best and Cheapest

Fertility Maker

The chief source of nitrogenous food for plants. Unequaled for increasing yield of vegetable and flower garden; making new and restoring old lawns; making clay soil friable, and sandy soil hold moisture. Absolute guarantee of success with Rhododendron, Kalmia, Wild Flowers and Ferns.

$5.00 for 5, 100 lb. bags, f. o. b. Stanhope, N. J.

Special price in bulk carload lots of 30 tons.

H. B. PRINDLE, 70 East 45th St., New York, N. Y.

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Nothing But the Best

Illustrated catalogue giving prices of imported and home grown varieties

ADVANCE DAHLIA FARM

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The FRENCH BINDERS

Good books with artistic binding

COUNTRY LIFE PRESS *GARDEN CITY, N. Y.*

Only $1.00 Postpaid—Worth $5.00

"The Glorious Gladiolus"

Contains more Valuable, Up-to-date "Glad" Information than all other books combined; all the "Secrets"; also Essentials of Rose, Iris, Peony and Dahlia Culture, etc. illustrated.

Send for SELLING OUT Sacrifice List

Finest Novelties, Best Mixtures—Less than HALF-PRICE—nothing reserved but Gladiacre Gardens' Seedlings,

J. W. VONDEL **Sharon, Massachusetts**

CHOICE GLADIOLI

To introduce our bulbs into more homes, we are offering a "Hand Made Mixture" of all colors, best named varieties only. We will prepay 100 bulbs 1" to 2" our selection, not labelled, for $4.00 or 25 for $1.00. These varieties if sold separately under label would cost $10.00 to $15.00 per 100 bulbs. "Baby bulbs, yearlings, ½" to 1" at one half above prices. Send for our several lists.

F. C. HORNBERGER, Hamburg, New York

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Hardy Perennial Plants. Field grown in finest "all hardy" assortment. Several new items exclusive with us.

Gladioli. Not too many. Selected from the best of our 500 varieties.

Annual Seeds. From the world's best sources. Many novelties.

Seeds of Perennial Plants. Separate list. Longest issued in America. Many items not obtainable elsewhere.

Ornamentals. *Home Grown* Hardy Azaleas.

Prices. As low as prime quality will allow. Free catalogues.

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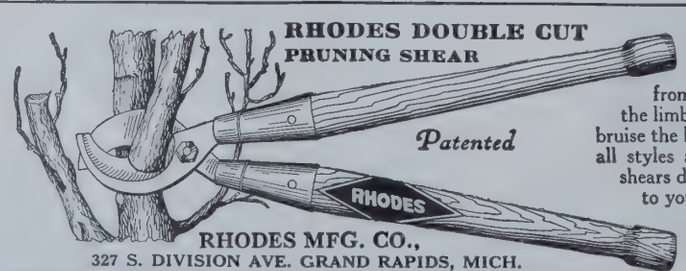
Painesville Ohio

RHODES DOUBLE CUT PRUNING SHEAR



Patented

THE only pruner made that cuts from both sides of the limb and does not bruise the bark. Made in all styles and sizes. All shears delivered free to your door. Write for circular and prices.

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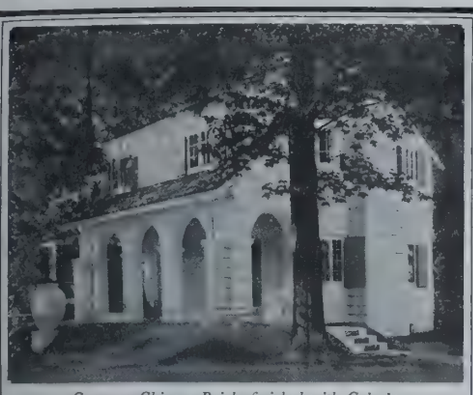

Common Chicago Brick, finished with Cabot's Old Virginia White
James Roy Allen, Architect, Chicago

Beautiful White Brickwork

These dainty houses are built of the cheapest Chicago common brick, and their striking appearance is due to the artistic tone and texture of

Cabot's Old Virginia White

Old Virginia White is as bright and cool and handsome as fresh whitewash, and as clean and durable as paint—but never looks "painty." Its remarkable success on woodwork has caused the architects to use it on brick, stucco and stone, with unique and charming results.

Cabot's Double-White

Whiter than white paint and two coats will do the work of three.

You can get Cabot's Stains all over the country. Send for stained wood samples and name of nearest agent.

SAMUEL CABOT, INC.
Manufacturing Chemists
4 Oliver Street **Boston, Mass.**
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Common Chicago Brick, finished with Cabot's Old Virginia White
Lowe & Bollenbacker, Architects, Chicago, Ill.

Have A Glorious Rock Garden

A few dollars will buy seeds of the World's Choicest Alpine Plants.

Rare 1923 Alpine Seeds from one of the largest and choicest collections in Britain, sold at most reasonable rates. Lists free. Sample packet containing twelve distinct varieties, $1.00. Thirty varieties, $2.00.

Rev. J. A. Anderson, Glenn Hall, Leicester, England

Morris Nurseries

MAKE your home a place of charm and beauty. The quaint precision of a barberry hedge, the delicate tracery of a climbing vine, the dignity of an evergreen, lend a loveliness that grows each year. Morris trees, shrubs and roses are famed for their sturdy growth. Orders shipped at proper planting season. Send now for illustrated booklet.

THE MORRIS NURSERIES
Box 804
West Chester, Pa.

Hitchings Greenhouses

Just Another of the Joys of Owning Your Own Greenhouse

THERE are times in the latter days of fall when the outside flowers have been frost nipped; and in the early days of spring, before they have come back again, when you would give a great deal to have an armful of blooms from your own garden.

Times when it would be a most pleasurable satisfaction to have a flower-filled greenhouse, where you could pick for a calling friend her favorite flowers.
Times when nothing else seems to quite answer the purpose. So it is, that greenhouses are so much more than mere winter gardens.
You will find on looking into it—that they contribute freely to your pleasures the entire year around.

To our printed matter you are welcome, or a representative will call at your request.

Hitchings and Company

Home Office and Factory: Elizabeth, N. J.

New York
101 Park Ave.

Boston-9
294 Washington St.

Philadelphia
Empire Building
13th & Walnut Sts.

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Commerce Bldg.
119 Main St., W.

50 Gladiolus Bulbs $1.75 Postpaid

Rare and Beautiful Varieties

I want every Garden Magazine reader who wants to grow beautiful flowers to plant some of **Kemp's Wonder Glads** for 1924.

For $1.75 I will send 50 blooming size bulbs, rare and beautiful named varieties (not labelled) postpaid to any point east of the Mississippi. West of the Mississippi and Canada, add 25c to cover extra postage.

This fine collection covers a wide range of colors and shades and is unquestionably the greatest value ever offered in high class Gladioli.

Gladiolus Catalogue, also list of Prize Winning Dahlias; please say which.

J. A. KEMP, ***Glad-Dahlia Specialist***
Little Silver **New Jersey**
25 Years a Breeder of fine Glads and other Plants

DAHLIAS

We specialize in high grade assortments carefully selected from our large stock of strong healthy bulbs.

Before planning your 1924 garden, write us for our free catalogue in which are listed the finest dahlias grown.

FREDERICK DAHLIA GARDENS
Frederick **Maryland**

Sowing a new lawn in the new way with the Shaker Seed Shaker.

The new way of reseeding bare spots with the Shaker Seed Shaker.

Using the Shaker to distribute Shaker Fertilizer in the garden seed drills.

Putting Shaker Fertilizer around the flowers with the Shaker.

Your Lawn

A new way
A *sure* way
To seed it

It's sent to you filled with enough Shaker Lawn Seed to sow 200 square feet.

Shaker Seed Shaker

$2 postpaid

For Sowing Lawn Grass

FOR the first time, here is a thoroughly practical grass seeder that will unfailingly distribute the seed evenly. One filling covers 200 square feet. It is 29 inches long, and just big enough around to nicely fit the hand. Makes seed go farther. Just shake it and the seed comes out in exactly the right amount. Not too thick or too thin. Anyone can use it. Nothing to get out of order. Will last for years. Specially handy to have always ready to touch up the bare or thin spots.

One filling Sows 200 Square Feet

It's sent to you filled with either of our highest grade, Shaker Lawn Seed—general purpose, or for shady places. It is ample to sow 200 square feet. Refill bags with patented Easy-Fill tops sold in square foot quantities. Enough to sow 200 square feet costs 75c. 500 square feet $1.50. 1000 square feet $3. Order Shaker Seeder at once. Postpaid anywhere East of the Mississippi River. If not satisfactory, money will be promptly and cheerfully refunded.

Costs so surprisingly little as $2. filled with seed, post paid anywhere in the United States. Enclose $2 bill, stamps or money order.

We make a special Shaker Lawn and Garden Fertilizer for use in the Shaker. Puts it right where you want it, without touching your hands. Packed in wedge shaped bags having Easy-Fill tops. Costs no more than other fertilizers that are not as good.

Julius Roehrs Co
At The Sign of The Tree
Box 10 Rutherford N.J.

Plan Now

for that IDEAL GARDEN which you have had in your mind for so long a time.

THEN ORDER some of the FAMOUS CHERRY HILL QUALITY of NURSERY STOCK which WILL MAKE YOUR DREAM OF YEARS COME TRUE.

Our NEW CATALOGUE will list the WORLD'S CHOICEST both in PEONIES, IRIS and PHLOX as well as in ORNAMENTAL EVERGREENS, SHADE TREES and FLOWERING SHRUBS.

CHERRY HILL NURSERIES
T. C. Thurlow's Sons, Inc.
Not Open Sundays
West Newbury, Mass.

The Glen Road Iris Gardens
SPECIALIZE IN RARE AND FINE VARIETIES OF BEARDED IRISES
Send for List
Grace Sturtevant, Prop.
Wellesley Farms, Massachusetts

California's Best Dahlias

Write for Descriptive List

LESLIE E. DOOLITTLE
DEL MONTE CALIFORNIA

SEEDS THAT SUCCEED

Direct from *The Nation's Capital*

Our beautiful illustrated catalogue is now ready and will be sent to you absolutely free on request. It has a beautifully lithographed cover in 6 colors and is full of useful information. As an inducement we are going to make you:

A SPLENDID OFFER

We will send to each one who includes 10c with their request the famous Capitol Collection of seeds as follows:
1 pkt. each, DWARF MIXED NASTURTIUMS, FEATHERBLOOM ASTERS, GIANT FLOWERED ZINNIAS, SCARLET GLOBE RADISH, MASTERPIECE LETTUCE, BOLGIANO TOMATO.

With each collection will be included a valuable coupon entitling you to:—

25c WORTH OF FREE SEEDS with an additional order amounting to $1.00 or more.

Don't delay—Send to-day

F.W.BOLGIANO & CO.
1011 B. St., N. W., Washington, D. C.

"It's not a Home until it's planted."

$1 BARGAINS

100 of them. Order now. Sent when desired.

Asparagus Roots—Ten years old—produce in 4 weeks..5 for $1.00
Asparagus Roots—Five years old—produce next spring 15 for $1.00
Asparagus Roots—Martha Washington—new variety..40 for $1.00
Asparagus Roots—Palmetto—2 years old .....50 for $1.00
Re-rooted 3 yr. *Asparagus* roots—Palmetto .....30 for $1.00
Witloof Chicory or French Endive roots. Produce good salad in 3 weeks .....30 for $1.00
Red-hot *Bohemian Horse Radish* roots .....60 for $1.00
Selected *Rhubarb* Roots .....8 for $1.00
Concord Grape Vines .....10 for $1.00
Brighton, Delaware, Diamond, Martha, Packlington, Worden, Wyoming *Grape* Vines .....4 for $1.00
Roses—1 year, a number of varieties .....6 for $1.00
Roses—2 years, a number of varieties .....3 for $1.00
Raspberries, Red or Black 20 for $1.00
Blackberry Plants..12 for $1.00
Dewberry Plants..15 for $1.00
Strawberry Plants 100 for $1.00
Everbearing Strawberry Plants .....50 for $1.00
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Shade trees—small trees 5 for $1.00
Wistarias .....5 for $1.00
Gladiolus bulbs..40 for $1.00
Peonies .....3 for $1.00
Iris .....3 for $1.00
Flowering Shrubs, all different 10 for $1.00
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Dahlia Bulbs ....6 for $1.00
Frost-proof Cabbage plants 300 for $1.00
Parsley plants—for early plants .....50 for $1.00
Lettuce plants—for early plants .....400 for $1.00
Cauliflower plants..50 for $1.00

and 70 other $1.00 bargains. List promptly mailed.
FREE—Six Martha Washington Asparagus roots with my Nursery and Root catalogue.
We are headquarters for *Asparagus*, *Rhubarb*, and *Horse Radish* Roots in large quantities, shipping them by the tens-of-thousands all over the United States and Canada. *Special prices in large quantities.* **WARREN SHINN, WOODBURY, N. J.**

Art Stone Bird Baths For Your Garden

A little planning turns your garden into a delightful outdoor living room. Wrought from enduring Art Stone, our bird baths, benches and other garden furniture last for generations. Send 10c for beautifully illustrated 64-page catalog.

Our Garden Plan Department will suggest distinctive arrangements and will help you in the choice of garden furniture.

ARCHITECTURAL DECORATING COMPANY
1606 South Jefferson Street, Chicago

Francis Lobdell mentioned as a "stand out" Dahlia in 1923 New York Philadelphia and Red Bank shows

Send for our 1924 Catalogue Listing the famous Jersey's Dahlias and Jersey's Wonder Glads

Francis Lobdell Prize Winning Hybrid Cactus

Among the many fine Dahlias we are offering for 1924, we recommend this beautiful Hybrid Cactus. Color is a rich mallow pink on outside, shading to almost pure white at the center. The form is unusually attractive. Francis Lobdell makes a multi-flowered attractive bush and is one of the finest of all garden growers. Can be used effectively in beds or borders. **Tubers $10.00; Plants $5.00.**

Fisher and Masson (Successors to Stewart and Fisher)
40 Elmhurst Avenue **Trenton, New Jersey**

Glorious Dahlias

If you have not grown Dahlias before, start now. Their extremely beautiful, immense blooms will be an inspiration to you to do bigger and better things. I have a carefully selected list of the *better varieties* (no mediocre sorts), and a few of the most worthy novelties.

Try one of my superb collections

15 named varieties (each worth $1) **for $10**

25 named varieties (each worth 50 cts. or more) **$12.50**

25 superb sorts (each listed at $1.50 or more) **$25**

Superb Gladiolus

What the daffodil is to spring flowers so is the Gladiolus to summer flowers—and more.

Grow them by the hundreds or the thousands so that when you cut them you can keep taking and taking till you have enough. Plant them in rows like vegetables in the garden; make successive plantings every two weeks till July first and there will always be bloom till frost.

Special Mixture. 100 bulbs (1½ inch or larger) of America, Mrs. Pendleton, Halley, Crackerjack and similar kinds, **$5 postpaid. Special Mixture** of same varieties, 1¼ to 1½ inch size, **$3.50 postpaid. 10 bulbs of 10 named sorts, $4.50 postpaid.**

Send for my new Dahlia and Gladiolus catalogue

CARL PURDY

Box 55 **Ukiah, Calif.**

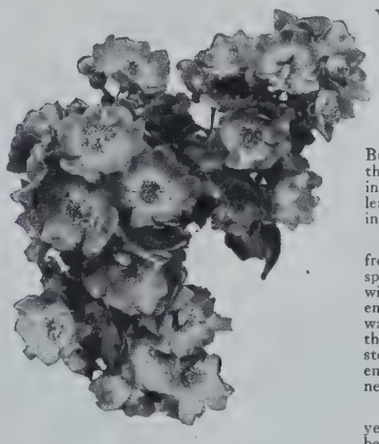
Hardy Roses for Northern Gardens

ROSEDALE ROSES have been successfully planted throughout the Eastern States, including New England. No hardier Roses of the same varieties can be found anywhere.

We ship only strong field-grown plants grown on hardy Japanese Multiflora stock. We do not handle pot-grown Roses, as we have found the field-grown plants hardier and stronger in every way.

Our plants are kept perfectly dormant from the time they are dug until they reach our customers. This permits you to set them out early and get the benefit of a full season's growth. We will ship your order as soon as the weather will permit planting in your section.

Our catalogue enables you to select from a large number of choice varieties—Hybrid Tea Roses, Hybrid Perpetuals, Hardy Rugosas and Climbing Roses.



What Rose Lovers Say

(Names furnished on request)

We unpacked and planted the Rose Bushes Saturday last, three days after they arrived. We found them not only in fine condition but well "cut back," leaving nothing to do but proper planting and after care.—New York.

The Dr. Van Fleet Rose purchased from you in the Spring of 1922 is doing splendidly. It went through the first winter without injury, although it was entirely unprotected. Last summer, it was ablaze with big blooms. We like them for cutting because of their long stems. Friends tell us we will have to enlarge our trellis to take care of the new growth.—Long Island.

I shall want a few more Roses this year, and yours are the best I have been able to get.—Massachusetts.

The Roses shipped by you April 20th reached me April 27th in splendid condition, and were in every way satisfactory.—Idaho.

Your shipment of Roses to us was so satisfactory, we wish to order more.—Illinois.

ROSEDALE EVERGREENS

77 Varieties—Sizes up to 25 ft.

Rosedale Nurseries are noted as the Eastern home of the magnificent Douglas Fir—the majestic king of the Rockies. We have the greatest stock of finished specimen trees of this variety to be found. They are beautiful Trees from ten to twenty feet high, ready to give immediate effect. We have hundreds of them ready for shipment.

All our Evergreens, Shade Trees and large-size Fruit Trees have been frequently transplanted in order to promote a heavy growth of fibrous roots close to the trunks. For this reason, they soon establish themselves in their new homes, scarcely pausing in their growth.

The Rosedale Catalogue will give you much helpful information. Your name and address on a postal will bring it. Write to-day.

You are cordially invited to visit our booth at the Flower Show, Grand Central Palace, New York, March 17-22.

ROSEDALE NURSERIES

"Outfitters for the Home Grounds"

Box A **Tarrytown, N. Y.**

"Prices as Low as Consistent with Highest Quality"

These Splendid Evergreens only $10.00

1 Austrian Pine 3½′ to 4′ tall
1 Arborvitae 2½′ to 3′ tall
1 Douglas Fir 2′ to 2½′ tall
1 White Spruce 1½′ to 2′ tall

This wonderful collection of evergreens illustrated above, was designed especially to help you decorate your Home Grounds. Each plant is a "gem," a "specimen," chosen for vigor, beautiful color, and fine shape—a truly remarkable value for Ten Dollars. You may plant this group at your front doorstep, at the path entrance, or on the lawn—in fact wherever you need evergreen beauty.

All are shipped with their big roots in a ball of native loam, burlapwrapped. Carefully crated, delivered free to the Express Office at Framingham, Mass., upon receipt of your remittance which must accompany all orders.

This book is sent free. Write for it to-day!

Our Year Book, called by many, "America's Leading Nursery Catalogue," is better than ever before. Full of the best illustrations obtainable, this book tells you simply and clearly how best to plant your Home Grounds.

Address all correspondence to Box B-3

Your new Year Book
Little Tree Farms
Framingham Centre
Massachusetts

Little Tree Farms
AMERICAN FORESTRY COMPANY
FRAMINGHAM CENTRE, MASSACHUSETTS

An Appreciation of Lutton Quality Greenhouses

RICHARD K. LE BLOND
CINCINNATI

Nov. 19, 1923.

William H. Lutton Company,
Jersey City, N. J.

Attention Mr. Edward A. Ward, Pres.

Gentlemen:

Received your favor of the 15th, and have instructed our traffic manager to send you a copy of the freight bill mentioned.

I want to take this opportunity of expressing my appreciation of the way you carried out the contract for my greenhouse. It has been satisfactory in every way; has been inspected by a great many people, among others Superintendent of Parks C. H. Meeds, who said he thought it was one of the finest greenhouses in this section of the country.

The way you handled the work, the quality of the work, the men you had on the job, and the whole transaction from beginning to end has been eminently satisfactory; and I always feel it is due a manufacturer to let him know when he has done a particularly first-class job.

Very truly yours,

R K LeBlond

Write for catalogue and any other information desired

ASK A LUTTON OWNER

BVR TRADE MARK REG. U.S. PAT. OFF.
GREEN HOUSES
PAT. JAN. 2, 1917

Wm. H. LUTTON COMPANY, Inc.
266 Kearney Ave. Jersey City, N. J.

PLANT-AID
TRADE-MARK

Send for an Attractive Can of Plant-Aid and be Glad!

Plants cannot flourish without food.

Plant-Aid 45 is, we believe, the most highly concentrated plant food on the market; odorless, refined, clean, the contents of a four or five pound bag of fertilizer purified, concentrated, packed in a neat pound and a half container—45% plant food.

Easily Used, add Plant-Aid to the water when watering or apply directly as a powder.

Economical, pound and a half tin for a dollar bill—three containers for two dollars.

Treat your house plants, your porch and garden flowers also!

Guaranteed, if you are not satisfied your money will be cheerfully refunded.

THE PLANT-AID COMPANY
Norfolk, Virginia

More and Better Plants and Flowers—Use Plant-Aid!

Send Order To-day!

The Plant-Aid Company
Box 258 Norfolk, Virginia

I am enclosing ..... dollars. Please send me ..... packages of Plant-Aid 45, as described and guaranteed.

Name .....

Address .....

Dwarf Fruit Trees

Here is a letter from one of our enthusiastic customers

Read what he says

Dwarf Apple Tree
Scarlet Beauty
See adjacent letter

Hicksville, Long Island, N. Y.

Dear Sir:

I am enclosing a picture of the dwarf Scarlet Beauty apple tree I purchased last year and was set out in June and was in bloom the following month, July. This year it was in full blossom and matured seven beautiful apples which weighed three pounds. The tree, as you will notice in photo, is only 30 inches high. The Cheresota dwarf plum had a dozen or more plums also the first year after planting.

Very truly,
GEO. L. LEHMAN.

Our customers send in pictures of these trees because they are pleased!

We Grow

Dwarf Apple Trees
Dwarf Pear Trees
Dwarf Plum Trees
Dwarf Cherry Trees
Dwarf Peach Trees

They are big bearers of big fruit from small trees. They bear younger and need less room. They are the best trees for the home garden.

Our catalogue will tell you about them. A postal brings it to you.

THE VAN DUSEN NURSERIES
C. C. McKay, Mgr. Box G., Geneva, N. Y.

WE MAINTAIN an unusually large list of herbaceous plants for the rock garden. We also have just as complete a list of evergreens, trees, flowering shrubs and vines. We make a specialty of no one thing, but do endeavor to grow a complete list of hardy ornamental nursery stock. A copy of our "Handbook of General Information on Trees and Hardy Plants" will be gladly mailed on request.

THE BAY STATE NURSERIES
W. H. Wyman & Son, Proprietors
NORTH ABINGTON,
MASS.

Glory of Flushing

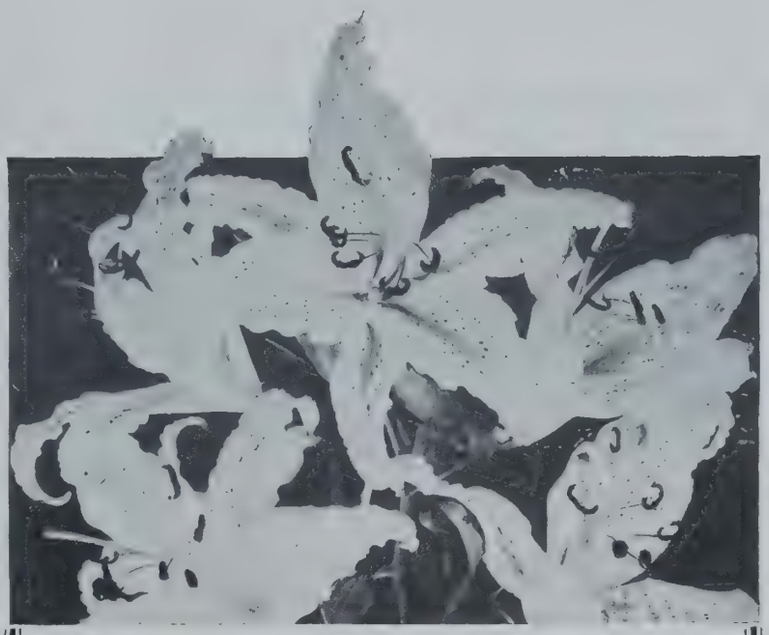
Old Gold Hybrid Cactus

Certificate of Merit, Storrs, Connecticut, 1923

In this many time Prize Winner, we feel we are offering Dahlia Lovers a truly wonderful origination. Color is a soft shade of gold but full of life and warmth. The old gold shades to a center of apricot shaded brown. Flowers measure 8-10 inches field grown and are very deep. Petals broad, rolled, and incurved. Plants robust, average 6 feet with a wide spread. Stems are very strong and hold the flower in a graceful pose. Cup winner, at Flushing.

Tubers, $15.00 each—2 for $25.00
Our 1924 catalogue gives a complete list of our great collection of Dahlias

FLUSHING DAHLIA GARDENS
Maude M. Wilson
174 Franklin Place **Flushing, N. Y.**



Lilies That Delight Everyman

Because Lilies *look* so exotic, so rarely beautiful, most people think that they are difficult to grow! Nothing is more erroneous! True, under correct soil conditions, properly situated, they do *better* than ordinarily, but—it's easy to grow Lilies everywhere and to enjoy them all summer.

Our Collection of Hardy Lilies is easily the most comprehensive in America. Ranging in prices from 15c. up, they are within the reach of all, while the connoisseur will be delighted to find the rarer kinds offered as well.

Second only in importance to Lilies ranks our collection of Hardy Ferns. To make it easy to get acquainted, we offer

Everyman's Fern Collection

Twenty-five sturdy plants for border, rockery and other situations as follows:

3 Lady Fern
3 Aspidium marginale
3 Aspidium Spinulosum
3 Asplenium platyneuron
3 Bladder Ferns
3 Hay Scented Ferns
2 Royal Ferns
2 Christmas Ferns
3 Rusty Woodsias

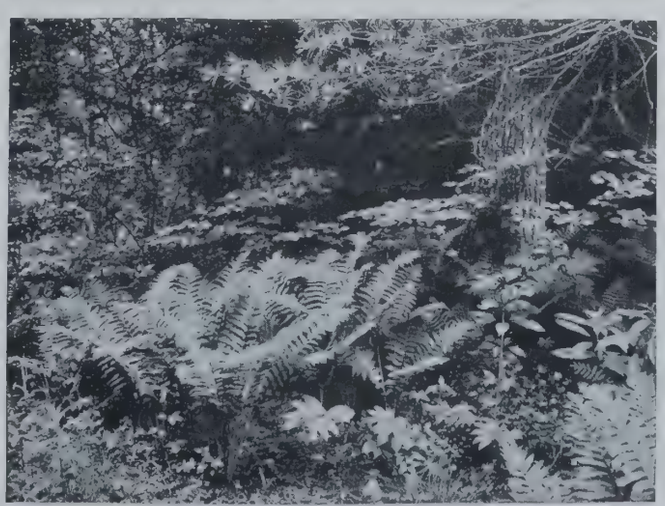
This Collection of Hardy Ferns for $3.00 not prepaid.

We also offer other Ferns, Wildflowers, and Hardy Perennials in a wide assortment, and would be grateful to you if you would

Afford us the pleasure of Mailing You Our Catalogue

Our 1924 Annual offers a most extraordinary collection of plants of proven hardiness. If it's hardy in Vermont, it's hardy almost anywhere; and if it's a truly hardy plant of merit, you'll find it offered in our Catalogue. Please write for it and mention Garden Magazine.

F. H. HORSFORD **Charlotte, Vermont**



Joyous Gardening

free from the grind and drudgery of hand hoeing and lawn mowing.

Read what Dr. S. Irving Moody of Brockton, Mass. writes on Dec. 18th, 1923:

"I want to express my appreciation of the Bolens Power Hoe. You surely have made a wonderful little machine.

"For furrowing out the rows for my 'Glad' garden, it seems to be an ideal implement. As a cultivator I have yet to see its equal. It does the work especially well and the speed range is just right. This season I have had less hand weeding to do than ever before. The power pulley comes in handy with the grindstone, etc. I have had absolutely no mechanical trouble whatever and am entirely satisfied with my purchase. The pleasure of growing Glads as a hobby is greatly enhanced by the use of such a marvelous helper. Now there is real joy in cultivating the garden and the beneficial effects are easily seen."

The Bolens Power Hoe

and Lawn Mower Tractor has snap hitch attachments for seeding, cultivating and lawn mowing and is instantly available for any of these operations. It is a motorized wheel hoe with an Arched Axle for clearance and a Tool Control for accuracy in cultivating close to the plants. A differential action makes turning easy and the handles are offset so you walk between the rows, although the tractor works astride the row.

The BOLENS will make your gardening dreams come true.

Send to-day for our 32 page catalogue giving full information with letters from many satisfied users.

GILSON MFG. CO.

205 Park St. Port Washington, Wis.

Don't You Want to Know and Love Water Lilies?

WORDS cannot describe the loveliness and charm of Tricker's Water Lilies. You must have them in your own garden, where you can watch the buds rise slowly to the surface, and burst into the glory of the fully opened flowers—then, and only then, can you fully know the resistless appeal of these lovely flowers.

My 1924 Catalogue

will tell you more about Water Lilies—the many colors, the habits of growth, the time of blooming, the ease of culture; all are explained. If you have only a small garden you can enjoy Water Lilies if you start this spring. Send for the booklet and learn how simple it is to have them.

William Tricker

Water Lily Specialist

661 Forest St. Arlington, N. J.

BROWN'S Auto Spray

There's a Brown's Spray for every need on the farm, in the orchard, garden, dairy or poultry house so you can spray everything *thoroughly, efficiently* and *economically* as advised by the government and agricultural college experts. Catalogue and Spray Calendar showing "When to Spray and How to Do It," free on request.

The E. C. BROWN CO.
850 Maple St, Rochester, N. Y.

Choice Gladioli and Irises

This is the title of our illustrated and descriptive catalogue. It is free. Send for your copy to-day and become acquainted with the better varieties of Gladioli and Irises.

GLAD-IRIS GARDENS
Gladiolus and Iris Specialists
RALPH B. PIPER, Proprietor Box 8, BELTSVILLE, MD.

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Largest growers of Orchids in the United States

Send twenty-five cents for catalogue. This amount will be refunded on your first order. Special list No. 78 now ready.

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Orchid Growers and Importers SUMMIT, N. J.

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2840 Peralta Ave. Oakland, California

Assorted Choice standard varieties sent postpaid at following prices. Cash with order. Safe delivery guaranteed.

Dahlias per doz.		*Gladioli per 25*	
Labeled	$3.00	Labeled	$1.50
Unlabeled	2.50	Unlabeled	1.00

Choice dahlia seed $1.00 pkt.

Write for illustrated Dahlia-Gladioli catalogue

Our 1924 Catalogue

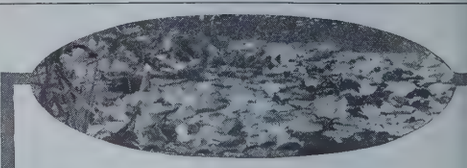
from our new location is better than ever, containing a list of rare and beautiful

Irises, Peonies and Gladioli

Also illustrations of our wonderful varieties and complete cultural directions. The catalogue that is kept and referred to constantly.

Write for it to-day. SENT FREE

RAINBOW GARDENS Farmington, Minnesota



Greater Garden Pleasure May Be Yours This Summer

Hardy Water Lilies will thrive in any garden, adding their fragrance and loveliness to your garden pleasures. Get the tub, pool or pond ready as soon as possible.

A good beginner's selection for pool is

Aurora. Cream, tinted rose.
Gloriosa. Deep carmine.
Eugenia de Land. Rose-pink.
Paul Hariot. Yellow.
Mary. Pure white.

Easy, simple cultural directions that insure success with Water Lilies and water plants, will be found in *our new catalogue* —send for a copy.

INDEPENDENCE NURSERIES CO.
Box M Independence, Ohio

DAHLIAS
from California to Everywhere!

Grown under field culture especially for roots, without being forced or fertilized.

Our nineteen twenty-four catalogue fully describes nearly five hundred of the best varieties of American and European origin.

Write us for a copy

ARCHER & VAVRA, *Dahlia Specialists*
P. O. Box 728 **Huntington Beach, California**

GRAPE VINES

EXTRA LARGE—EXTRA STRONG
***Well Rooted* 3 YEAR OLD PLANTS**

1 RED
1 WHITE
1 BLUE
} **$2.00**

For Delicious Grape Juice, Plant These Three Varieties—

BRIGHTON RED—Bunches large, compact, shouldered; berries rich wine red, with purple bloom; pulp tender, almost seedless, juicy, sugary, and rich; vine vigorous grower, prolific and early bearer. A superior variety, ripening about a week earlier than Delaware.

NIAGARA WHITE—Bunches very large, uniform and compact; berries large, pale yellow, with a thin white bloom; pulp melting, sweet, and delightful; vine strong grower and very hardy. An excellent variety for either home or market garden. Ripens a little before Concord.

CONCORD BLUE—Bunches large and compact; berries large, round, almost black, covered with delicate blue bloom; pulp juicy and sweet; vine very hardy and equally productive. A great favorite in the markets.

***Send us your name for a copy of our beautiful Catalogue and Planting Guide. 60 illustrations;—Fruit, Nut and Ornamental Trees, Roses, Shrubs, Evergreens, Vines, Peonies, Etc.* Just ask for Catalogue "D"**

GLEN BROTHERS, Inc. ***Glenwood Nursery***
ROCHESTER, N. Y.

"Famous Since the Sixties"

A Little Jewel

"Flowers are Nature's jewels, with whose wealth she decks her summer beauty."
—CROLY.

TUCKED away 'midst the friendly shrubbery rests this important annex to the Home—an ever-present joy to the owner. Hours of pleasure lie waiting in the warm brown earth on its benches; earth that is at work the year around, bearing succulent food and lovely flowers.

And here are the greatest facts in this greenhouse matter: The pleasure of owning a Callahan Greenhouse is *not* expensive and *you can erect it yourself with ease.*

Callahan Greenhouses

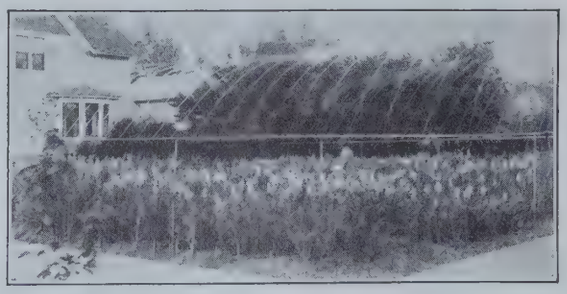
Callahan architects made simplicity of design the prime requisite. Their ingenious unit-built methods have eliminated the necessity for skilled labor. Even the holes are bored; the hardware attached. A screw driver, a wrench, a hammer, your time and ground, plus a Callahan greenhouse, will make your dreams come true.

See our Greenhouse at the National Flower Show, Cleveland, March 29-April 6.

The Greenhouse Book with pictures and prices will tell you more. It's yours, free, for the asking—and a post card request will do.

The T. J. Callahan Company
303 Stout Street **Dayton, Ohio**

Rain When You Want It



From a Satisfied User

"I am very glad indeed to add a word of praise for the Skinner Irrigation System. My garden this year was on a plot of ground 50x145, almost entirely sub-soil, as between five and six feet has been taken off the top in grading; but thanks to the Skinner System and proper fertilizer, I was enabled to grow as fine a lot of gladiolus and dahlias as I have ever had.

"I hooked up my system by feeding the water from the center and running both ways of the lot. This allows me to water any one-fourth of the garden that I wish to. This is especially advantageous in growing dahlias as I find that for the first six weeks, water is really not good for them unless the ground is exceptionally dry. But as the buds begin to form, fertilizer and water certainly bring out the finest flowers one could want."

Write for information, giving size of your garden

The Skinner Irrigation Co

219 Water Street **Troy, Ohio**

SKINNER SYSTEM OF IRRIGATION

Southern Dahlias
Grown in Old Virginia

In the Hickory Hill Dahlia Collection you will find practically all of the World's Best Dahlias.

Two Hickory Hill Dahlias of Merit

Dr. L. C. Bosher—A sterling hy. cactus of most unusual and attractive coloring—a real "henna" shade. Heavy petals, slightly curved; large flower on excellent stems. Dr. L. C. Bosher has proven a great seller on the cut flower markets. Field grown tubers, **$1.25** each.

Laura Marion Starke—A red and white decorative. Base of petals red with white tips extending part way down each petal. Free and continuous producer of excellent flowers for shipping. An unusually attractive Dahlia, and quite distinct. Field grown tubers, **$2.50** each.

Write for our 1924 Catalogue

Hickory Hill Dahlia Farm

J. S. Bosher, *The South's Leading Dahlia Specialist*
Box 227-A **Richmond, Virginia**

JUST WHAT YOU WANT TO KNOW

Latest information on garden, orchard and field crops, soil fertility, dairying, poultry, live stock raising, etc. We can help you on any farm and garden problems.

Our new and beautifully illustrated 1924 catalogue, 148 pages describing over 500 practical, modern books, *Free* to you on request. Business founded 1836. *Write to-day.*

ORANGE JUDD PUBLISHING COMPANY
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HURLEY BROTHERS COMPANY
Closter, New Jersey

Collection One, Six named Iris, $1.00 } Both Collections $2.25
Collection Two, Six named choice " 1.50 }
Collection Three, Six hardy Phlox, $1.00

Catalogue of Hardy Perennials Sent on Request

Flower and Vegetable **SEEDS**

Gladioli, Dahlias, Iris, Phlox, Peonies, Shrubs, Ever-bearing Strawberries. Free Catalogue.

M. J. CULLEN'S SEED GARDENS
Denver, Colo.

EXQUISITE DAHLIAS

at the following rates until surplus is exhausted:

12 good varieties, our choice, unlabelled.....$ 1.50
12 fine varieties, our choice, labelled..... 2.50
12 very fine varieties, our choice, labelled.... 5.00
12 latest novelties, our choice, labelled..... 10.00

Catalogue and 16 other combination offers, free.

INDIANA DAHLIA FARM, New Albany, Ind.
Largest Selection of DAHLIAS in the U. S. A.

HAVE THE EARLIEST VEGETABLES!

Start your plants EARLY.

Place them in Bands and by having large plants, gain several weeks on the season. If you cannot get them from your seedsman, a package of 250 will be sent postpaid in the U. S. A. for:

1¾ in. sq. **$1.00**
2 in. sq. **1.25**
3 in. sq. **1.50**

Pots or Bands with folding bottoms:
2 in. sq. **$1.50**
3 in. sq. **3.50**

They never know they have been moved!

Our little book **"Plants in Paper Bands" 25c.**

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Superb Gladioli Bulbs (Largest Size)

	Each	Doz.
Peace. Large White	$ .07	$ .70
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America. Standard, Silvery pink	.04	.40
August. White, blue anthers	.04	.40
Lily Lehman. Lily shaped white	.07	.70
Niagaria. Large lemon yellow	.08	.80
Mrs. Watt. American beauty red	.08	.80
Kunderd Glory. Cream apricot	.08	.80
Mrs. Frank Pendleton. Pink red blotch	.08	.80
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50 Gladioli. Mixed—All Colors, $1.50

Collection of 10 choice, hardy, field-grown perennial plants. Labeled, all different for $1.00 postpaid.

Iris. One each of 8 best varieties. Labeled. All different, postpaid, $1.00.

Cannas. 5 varieties. All different colors. Labeled. 50c., postpaid.

Dahlias. 8 choice varieties, all different colors. Labeled. $1.00.

ROSE SIDE GARDENS **Warwick, Pa.**

Jones' Grafted Nut Trees

You can grow your own supply of nuts and of the very finest quality and, best of all, you can have producing trees very quickly by planting trees of my fine grafted varieties.

Nut Trees are Dual-Purpose Trees

and these fine varieties, aside from producing an abundance of the finest nuts, make ideal specimens for the lawn or home grounds.

Supply of trees limited. Write for new finely illustrated catalogue.

J. F. JONES, *Nut Tree Specialist*
Box G. **Lancaster, Pa.**

Make Your Grounds Productive and Beautiful

Keystone Fruit Trees and Ornamentals will increase the value of your property

Plant Keystone bred-to-bear Fruit trees this Spring and enjoy delicious high quality fruit in 1 to 3 years. Put your idle land to work.

Every tree or shrub leaving Keystone Nurseries guaranteed healthy and true to name. Grown under ideal conditions in the famous Ohio River valley—"Where trees grow better and yields are more." Scientifically raised and carefully packed.

Illustrations show famous Mammoth Grape, specimens often running as large as a silver quarter, and a planting of Spirea, a beautiful ornamental for the home grounds.

Send for big free catalogue showing complete line of fruit trees, ornamentals, shrubs, and flowers.

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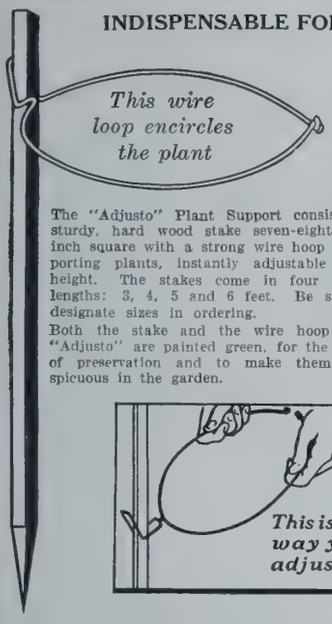
"ADJUSTO" Plant Supports

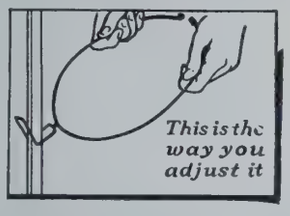
nearly 2,000,000 now in use

INDISPENSABLE FOR PEONIES, HYDRANGEAS, ROSES, DAHLIAS, DELPHINIUMS, CHRYSANTHEMUMS AND EVERY SHRUB OR PLANT ON THE LAWN OR IN THE GARDEN



The "Adjusto" Plant Support consists of a sturdy, hard wood stake seven-eighths of an inch square with a strong wire hoop for supporting plants, instantly adjustable to any height. The stakes come in four different lengths: 3, 4, 5 and 6 feet. Be sure and designate sizes in ordering.

Both the stake and the wire hoop of the "Adjusto" are painted green, for the purpose of preservation and to make them inconspicuous in the garden.



"ADJUSTO" Plant Supports mean bigger crops and finer flowers. They hold plants in the air and sun and enable you to cultivate close to the roots. Increase growth and fruitfulness. "Adjusto" supported Tomatoes ripen to perfection. "Adjusto" supports bring out the full beauty of Dahlias, Chrysanthemums and all slender, tall-growing varieties. They help you to grow premium grade blooms, either for your own enjoyment or for exhibition. The "Adjusto" Plant Support contains no nails, hooks or screws. It holds securely any flower or plant and is easily and instantly adjustable to conform to the plant's growth. There is nothing like it on the market. Yet the cost is moderate, it can be used successively for different plants throughout the season and it will last for many years.

Buy "Adjusto" Plant Supports through your local garden supply house or write us for the nearest dealer's name. Order your "Adjustos" today. Summer is coming. Get ready now.

THE FORREST SEED COMPANY, Box 60, Cortland, N. Y.

DIRECTIONS FOR USING THE "ADJUSTO"

1. Drive stake firmly in the ground.
2. Unhook wires at the ends.
3. Bend wires back until the opening is sufficient to permit you to encircle plant near ground.
4. Hook ends of the wire together around bottom of stake.
5. Raise up wire hoop to the height required to support plant.

By following these directions you can stake up a hundred plants in as many minutes.

"Adjusto" supported Hydrangeas on lawn of G. Harry Garrison, Esq., Cortland, N. Y.

Paul's Scarlet Climber

TO SHADE an old-fashioned doorway, to soften an awkward line with glossy green leaves, or transform the neglected corner with flaming scarlet, plant Paul's Scarlet Climber.

It has brilliant color, luxurious foliage, and graceful sprays on strong roots. The pert little buds grow to great scarlet flowers that retain their color all through the long blooming season. The plant increases in beauty each year. No mildew or insects deface the crisp green foliage. Can be used for all climbing purposes or as a bush.

Awarded the gold medal and cup as best climbing rose by National Rose Society of England and "stood out by far the best among the climbers" at a recent international exhibit at Paris.

Plants from 2½" pots, 30c; 4 for $1.00, postpaid. 2-year-old plants, 90c each; $9.00 per dozen, by parcel post, prepaid. Large specimen plants, $1.50 each. By express, charges collect, with soil on roots. All plants on their own roots.

Our "New Guide to Rose Culture for 1924" sent free upon request

Illustrates wonderful "Dingee Roses" in natural colors. The lifetime experience of the *Oldest and Leading Rose Growers in America*. Offers 500 varieties Roses, and other plants, bulbs and seeds and tells how to grow them. Edition limited. Established 1850. 70 greenhouses.

The Dingee & Conard Co.
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A Bird Bath of GALLOWAY POTTERY

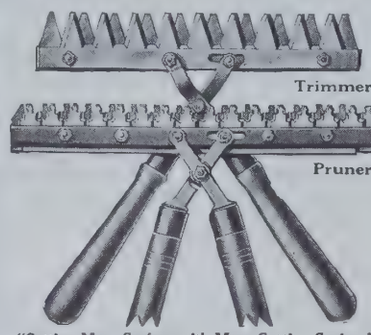
WILL make a delightful spot in your garden, bringing the birds with their merry notes. Our collection of high fired Terra Cottas includes Vases and shapely Jars, Flower Pots, Boxes, Fonts, Sun Dials, Gazing Globes, Benches and other pieces that will add interest to your garden, sunroom and home.

A catalogue illustrating 300 numbers will be sent upon receipt of 20 cents in stamps.

GALLOWAY TERRA-COTTA COMPANY
3214 WALNUT STREET, PHILADELPHIA.

Trim Your Hedges The *Modern Way!*

The "Simplicity" Pruner and Trimmer relegate old-fashioned hedge shears to the scrap heap, because with them the gardener does more work, better work, in less time than could ever be done with ordinary blade shears. Two styles "Simplicity" are available as follows:



"Cutting More Surface with More Cutting Surface"

Simplicity Hedge Pruner and Trimmer

Please refer to editorial comment on this new garden help on page 345 February Garden Magazine. It cuts both opening and closing — every stroke counts. Perfectly balanced for easy operation, this three pound tool brings into action 31 fluted, keen-edged teeth that clip a clean path, 16 inches wide, through any hedge. Price, **$7.50.** West of Mississippi, $8.00

The Simplicity Hedge Trimmer is intended for use on new growth only. Greatest tool for trimming Privet, Barberry, etc. Cutting width, 12 inches, with finest high-grade carbon steel blades. Price, **$5.00.** West of Mississippi, $5.50

Ask your Dealer about the "Simplicity." If he cannot supply, order direct. Descriptive circular on Request.

Trenton Patent Mfg. Co., 112 Murray Street Trenton, New Jersey

HUDSON

GARDEN TOOLS

COMBINATION SEEDER AND CULTIVATOR

Complete outfit in one tool. Plants any garden seeds in rows or hills any distance apart--100% accurate. Covers seeds uniformly at proper depth.

SIX TOOLS IN ONE

Ends back breaking bending in planting. It hoes, cultivates, plows, rakes--any garden job you wish. Enables you to double the size of your garden without increasing your work.

CULTIVATOR RAKE—handiest little tool made! Does easier, faster, better work. Adjusts 7 to 18 inches wide. Remove center tooth to straddle row.

If you don't know your HOME TOWN HUDSON DEALER write for his name and free illustrated catalog.

HUDSON MFG. CO.
Dept. 421 Minneapolis, Minn.

School of Horticulture
FOR WOMEN

Gardening, Fruit Growing, Bees, Poultry. A delightful, healthful calling—one of the most pleasurable open to women. New interest every day. Two-year diploma course combines practice with theory. Good positions open to our graduates. Eighteen miles from Philadelphia.
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RHODODENDRON AND MOUNTAIN LAUREL
FINE PLANTS

Fruit Trees and Fruit Plants
Send Want List for Prices
MORRIS NURSERY CO., 1133 Broadway, New York City, N. Y.

Keep the weeds out and the surface mulched to retain the moisture—that's the secret of gardening.
You'll enjoy doing this with a

BARKER Weeder, Mulcher and Cultivator

Eight blades revolving against the underground knife destroy the weeds and *in the same operation* chop the clods and crusted surface into a level, porous mulch. Intensive cultivation. "Best Weed Killer Ever Used." Cuts runners. A boy can run it, and do more and better work than ten men with hoes. Has guards to protect the leaves; shovels for deeper cultivation. Inexpensive. Everyone interested in gardening, for either market or home use, should have this machine.

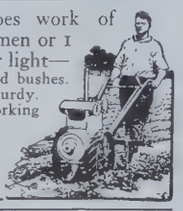
FREE BOOK by practical garden men. Tells how to get best results, save time, eliminate hard work; illustrates the BARKER and its work; tells what leading gardeners say about it; gives prices delivered, etc. write for it to-day.

BARKER MFG. CO.
Box 11, David City, Neb.

Send for FREE BOOK

Red E Power Cultivator

Does work of 4 men or 1 horse—heavy cultivating or light—fast or slow. Cultivates around trees and bushes. Easily operated and steered; simple, sturdy. Automatic lubrication, dust-proof working parts and our own 4-H. P. 4-cycle air-cooled engine. Uses hand or light horse tools.



M. B. M. MANUFACTURING CO.
379 Reed Street, Milwaukee, Wis.

Write to-day for your copy of

Mexican Wild Dahlias
and the
Best California Varieties
With Key to Their Colors

More than a price list.
A catalogue you will keep.
Free for the asking.

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Lincoln Manor San Francisco
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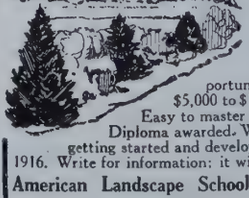

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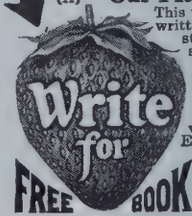

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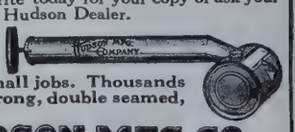

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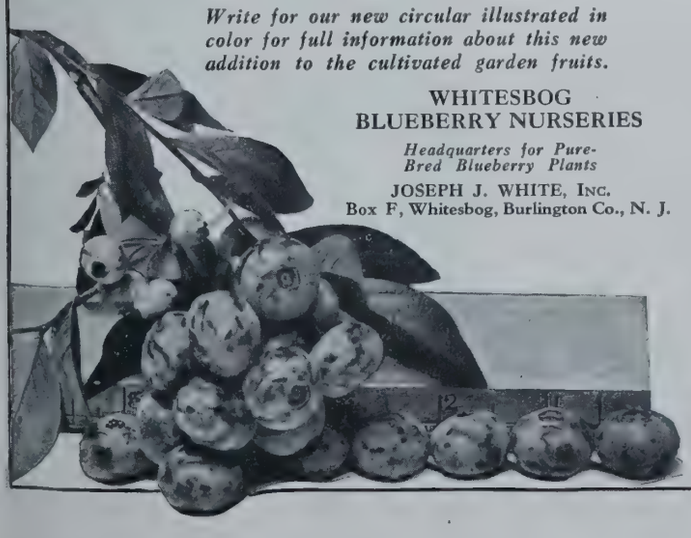

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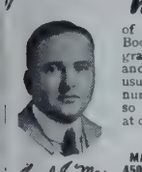

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12 Dahlias or 100 Gladioli

ALL NAMED VARIETIES $3.00 BOTH FOR $5.00

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We are originators and introducers of some of the most highly praised new gladioli on the American market to-day. Your collection of choice varieties is not complete without *Gold, Jenny Lind, Carmen Sylva, Regalis, Jap Lady, Pollyanna, Titanic, Montezuma, Hazel Dawn* and many of our other beauties.

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Grow *New* Gladioli

All the wonderful *new* prize-winning varieties are grown from seed. From our world-wide collection of choice varieties in addition to the superb "Austin-Originations" embracing every color and form known to the Gladiolus, we offer hand-pollenized seed, the careful hand work of Mrs. A. H. Austin.

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plants grow outdoors, acclimated to all climates. One-year and two-year plants ready for shipment; the healthy, hardy roots of Fairfax Rose Plants assure a **free and beautious bloom the first season.**

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1924 Catalog FREE

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Made from a black, shiny, weather-proof paper which will last indefinitely. They come packed in packages of 25 with stakes for locking the edges and anchoring the cone to the ground. Once assembled, they can be nested for storage, and used from year to year.

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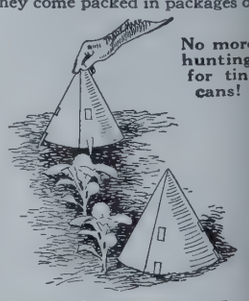

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Buttercup—Deep Primrose
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Exquisite—Light rose
Each **25 cents** per packet.

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Maximum Giant Flowered, producing individual flowers 2 to 2½ inches wide on strong stems.
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IF YOU ARE BUILDING A NEW HOME, don't fail to ask your Architect to include a Loomis-Manning Filter in his specifications, for it filters all the water, it frees the water from all matters in suspension, color and iron stain, odors and tastes, chlorine odor and taste and delivers it to all the faucets in the home, clean, sparkling and safe for any domestic purpose and it is highly palatable.

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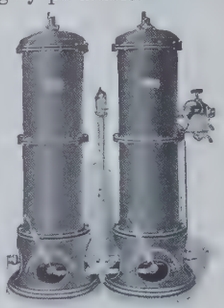

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Controls Box Mite, Lace Fly on Rhododendrons, Azalea Beetle, Thrip, Aphis, Leaf Hopper, etc.

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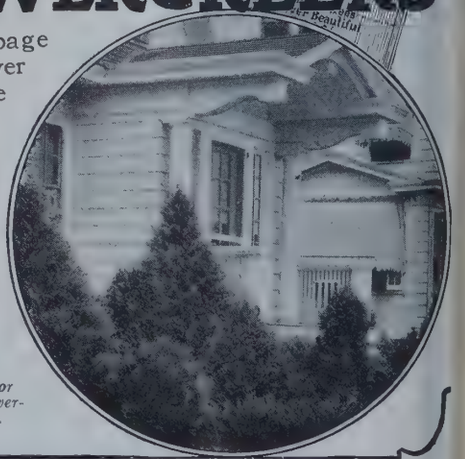

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Zinnias are indispensable annuals as they can be grown universally. They require little attention from the time seed is sown. So easy to start, the seed can be planted in the open after the middle of May.

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Now is the time to Plant

for an ideal garden of beautiful ROSES; our plants take firm hold in the soil and produce wonderful bloom early in summer.

Our roses are *guaranteed* to be two years old, field grown, hardy, and of good size; *Strong, Healthy Plants*, true to name, and *Budded on the Long-Living, Sturdy* ***Rosa Multiflora Japonica.***

Roses budded on the ***Rosa Multiflora Japonica*** produce strong, healthy roots, which, when transplanted, thrive at once and produce very large flowers of *Pure Color.*

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Mary C. Burns

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Our stock is healthy, vigorous field grown tubers. We do not grow green plants.

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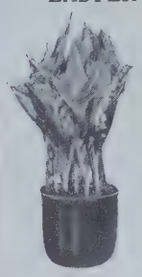
EASTER Sunday falls on April 20th



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MAGIC LILY OF THE VALLEY
So pure, So entrancing.

They flower in full glory in Our Prepared Moss Fibre in 16 to 18 days from time of planting.

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Can be planted in any bowl or jar without drainage. The price *includes delivery* (7th and 8th zones add 10 per cent.) with sufficient Moss Fibre to plant and full directions. ORDER EARLY. Demand always exceeds supply.

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Lilies are your Garden's Glory. Do not fail to plant them, they come up year after year, and multiply. *NOW* is the time. To encourage all flower lovers we offer this *Superb Collection.* *Each*

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UP TO DATE DAHLIAS AT ESPECIALLY LOW PRICES

Hybridized and Assorted Seed of various California Producers.

Our List is Ready for Distribution

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25-"Superb" Gladioli
5-Assorted Dahlias 5-Assorted Can

All sent for $1.00 postpaid

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Established 1887

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Giant Holland and California garden and exhibition Dahlias. Grown on the Maine sea coast. Hardy, vigorous and prolific bloomers. Only tubers showing live eyes sent out. Price of tuber 20cts. up, none over 75cts. Price list sent on request. 15 varieties price list value $4.50, Postpaid for $3.00.

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Only varieties of proven superior merit, whether old o new, are worthy of a place in the best gardens.

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Make your house into a really attractive home with plantings of beautiful old-fashioned flowers. We are ready to supply you with big healthy *field-grown* plants of Phlox, Peonies, Chrysanthemums, Lilies and many other hardy perennials. *Send for catalogue now.*

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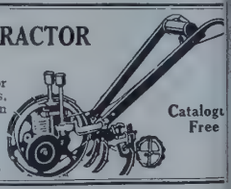
A Practical, Proven Power Cultivator for Gardeners, Suburbanites, Truckers, Florists, Fruit-Growers, Nurserymen and Lawn work.



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Unique and attractive, skilfully and quickly constructed.

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WORLD'S choicest selection of Dahlias, such as Amun Ra, Mrs. I. de Ver Warner, Rookwood, R. O. Fletcher, G. A. R., Prem. Geo. Clemenceau. A most wonderful beauty. Send for catalogue of over 600 varieties. Send me $2.00 and get 15 choice Dahlia bulbs. My selection.

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GLADIOLI

36 Mixed Bulbs, 6 Colors $1.00
42 Fancy, 10 Colors..... $3.00

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Colored Gladiolus Book with cultural directions, FREE.

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Pudor's Glory of Puget Sound Strain

Of *Double Flowering Blue and White Delphiniums*

Long Spurred *Columbines*

The Latest Imported English Hybrid *Lupins.*

Over *200* of the World's Best *Old and New Irises.*

At Greatly Reduced Prices for 1924

All these are described and priced in my new *Iris Price List.* My new booklet on *"Delphiniums"* will show you my finest named Hybrids in natural colors, and tells you everything you want to know about the successful growing of this lovely *"Blue Queen"* of the Hardy Garden. I am sure you will prize a copy of it. *"I only grow the finest things for the garden — yours and mine!"*

O. M. PUDOR, Iris and Delphinium
Grower and Breeder
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We have on hand a fine lot of cured rhizomes of mixed seedlings which may be planted at any time within the next year. Price 4 cents each in lots of 25 or more.

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E. B. Williamson Paul H. Cook
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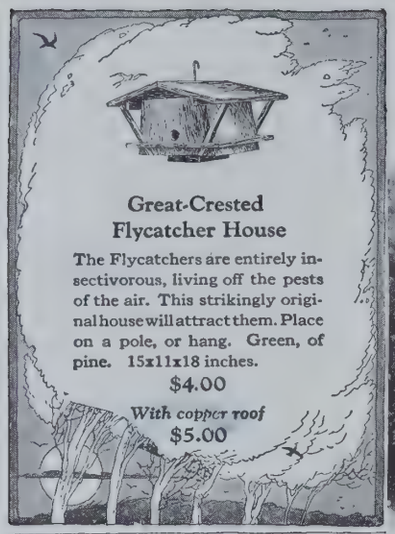
Planting for Quick Effects

Getting Flowers All Summer

This Season's Novelties

VOL. XXXIX No. 2

Doubleday, Page & Company, Garden City, New York Boston :: Los Angeles :: Chicago



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The Flycatchers are entirely insectivorous, living off the pests of the air. This strikingly original house will attract them. Place on a pole, or hang. Green, of pine. 15x11x18 inches.

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With copper roof

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Dodson Bird Houses

Queen Anne Martin House

Made with 48 rooms for the beautiful martins who colonize. The martins devour mosquitoes! Scientific porch. Pure white and green trims. Of pine, copper roof. 22-foot easy raising pole, house 36 x 26 x 37 inches.

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Enjoy them— on a square foot or on an acre!

FOLKS get an idea the song birds must have a whole park or vast estate...Oh, no! There's a little pair of wrens, bluebirds, flycatchers, waiting for a home on the eaves of your house. Or on the tree just outside. A colony of beautiful martins are scouting about for a home on a pole... Give them a perfect home! They know Dodson Bird Houses, these signs of hospitality which all good folks put up. Scientific houses, the best a famous student of bird life can offer. So marvelously arranged as to minute details which attract the birds. You are not disappointed in Dodson houses

The song birds SAVE you hundreds of dollars in trees, shrubs and growing plants. They WORK merrily, ridding you of cutworms, moths, gnats, mosquitoes and all the costly insect pests. They PROTECT your growing things, and they're mighty economical insurance

Order direct from this page. The houses come carefully crated, all ready to put up. Instructions are enclosed. We are ready to take care of your order today! Or write to Mr. Dodson

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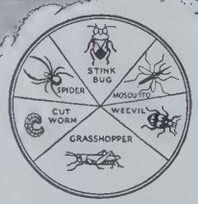

See what the birds eat!

Government research has disclosed the song birds' value to America. See here one bird's daily diet! Just attract the songbirds to your grounds! Dodson Famous Sparrow Trap removes the harmful English Sparrow. 36 x 18 x 12 in. $8.00

Scientific Wren House

It brings the silver-throated wrens! A 4-compartment house satisfying their habit of changing nests for each succeeding brood. Beautiful design, to hang from tree, eaves or elsewhere. Green. Of oak, with cypress shingles, copper coping. 28 inches high, 18 inches diameter.

$7.00

Sexangular Flicker House

Places with trees should have these houses. The woodpecker family save millions of dollars in trees annually, destroying moths, ants and tree pests. Lovely design. Brown to match tree trunk. Norway pine. 26½ in. high, 12 in wide.

$7.00

FREE

Send for Mr. Dodson's fascinating booklet—"Your Bird Friends and How to Win Them." Forty years' loving study of the birds has completed it. Things you should know about the work of the song birds!

From Grower to Consumer

Send for 1924 Dahlia Catalogue

Charm—

Richly Colored, Decorative. A great Dahlia for garden or house

DAHLIAS

Van Bourgondien Bros. Box B, Babylon, N. Y.

OUR 1924 SPRING CATALOGUE is ready for mailing. In it you will find listed the best of the American and Holland varieties, with full descriptions, prices and many life size illustrations in color and black and white. Besides listing the Van Bourgondien Dahlias, it contains descriptions and prices of our wonderful stock of Gladioli—one of the most complete in America.

Two Superior Dahlia Offers

Collection One:

In this collection you will find 8 of the World's finest Dahlias, each one a prize winner and a favorite for garden or exhibition hall. If you want to grow the prize winners, here they are:

	EACH
Amun Ra, Dec., Copper, bronze and amber. Considered one of the best.	$5.00
Charm, Dec. Rich salmon with orange shadings. One of the best cut flowers.	2.50
Earle Williams, Dec. A really great Dahlia. Red and white.	2.50
Insulinde, Dec. The finest Holland origination. Colossal flower, strong stems, beautiful old gold color, with bronze suffusion.	2.50
Jack Urlus, Dec. Holland novelty. Large flower of exquisite apple blossom coloring. Awarded 1st class Cert. in Holland.	2.00
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Mrs. I. de Ver Warner, Dec. Deep refined mauve pink. Wonderful bloomer. Great for exhibition, perfect stems.	5.00
Paul Michael, Dec. Deep orange buff, reflex old rose. One of the largest and finest Dahlias.	3.00
1 Bulb of each of these Great Dahlias, $25.00 postpaid.	$26.00

We deliver *prepaid* if order is accompanied with cash, provided address is in any of the following states: New York, New Jersey, Pennsylvania, Delaware, Maryland, Connecticut, Vermont, New Hampshire, Maine, Rhode Island, Massachusetts, and District of Columbia.

Collection Two:

Here is a real Dahlia bargain. 12 great Dahlias each a favorite, wherever known. If you are not a Dahlia fan, this collection will convert you.

	EACH
Attraction, Hy. Cactus. Soft lavender.	$1.00
Autumn Glow, Dec. Rich buff.	1.00
Beloit, Hy. Cac. Purple garnet.	1.00
Couronne d'Or, Dec. Large flower. Golden yellow, shaded orange.	2.50
Hochsai, Dec. Holland variety. Yellow, heavily suffused with red.	.75
Jonkheer Boreel, Dec. Large beautiful golden buff.	1.00
Kalif, Hy. Cac. Gigantic flower, bright scarlet.	1.00
Long Island, Dec. Golden yellow, overlaid with lavender.	1.00
Old Rose Beauty, Dec. New Introduction. Rich rose pink. A great Dahlia.	2.50
Patrick O'Mara, Dec. Pleasing combination orange buff.	1.00
Radin Kartini, Dec. A Holland variety of great beauty, salmon, lilac, mauve.	1.00
Red Cross, Hy. Cac. Fiery scarlet and gold.	1.50
1 Bulb of each of These Dahlias $12.00 postpaid.	$15.25

We guarantee all our Bulbs, Roots and Plants to grow and to be true to name, and we will replace any Bulb, Root or Plant if found otherwise.

Van Bourgondien Bros.
Bulb and Plant Specialists

Box B, Babylon, Long Island, N. Y.
Nurseries at Babylon, L. I., New York, and Hillegom, Holland

The Woods' Glory for *Your* Homegrounds

If you are not situated so that you can visit the woods, let me bring them to you! Azaleas, Kalmias, Rhododendrons, and other woodland denizens are not a bit "fini ky!" They'll thrive in any fair average garden soil. And the fine plants I am prepared to supply—from the woods direct to you—should do well on your home grounds. Here are a few typical offers:—

	10		10
Azalea Lutea, 1 to 2 ft.	$ 7.50	Andromeda floribunda	
2 to 3 ft.	10.00	1 to 2 ft.	$15.00
3 to 4 ft.	15.00	2 to 3 ft.	22.50
Kalmia latifolia—Mountain Laurel		Rhododendron carolinianum	
1 to 2 ft.	7.50	1 to 2 ft.	12.00
2 to 3 ft.	10.00	2 to 3 ft.	20.00
3 to 4 ft.	15.00	3 to 4 ft.	42.50
		4 to 5 ft.	62.50

Five of one size and variety will be sold at the ten rate

These prices include packing and delivery to Railroad Station at collecting point. Where carload lots are required, more advantageous prices will be quoted. Please write for special folder.

Hardy Ferns for Sun *or* Shade

For years and years I have studied and collected Ferns, until I believe my nursery holds one of the greatest collections in the country. One gets to know the habits, preferences, shortcomings, etc., by lifelong association with the ferns and so I can vouch for the "good behavior" of the following for the purpose suggested:—

Collection No. 1

For Open Sun Culture

35 fine clumps for $5.00

5 Asplenium Filix-foemina, 2 to 3 ft.
5 Onoclea Struthiopteris . . . 2 to 4 ft.
5 Osmunda Claytoniana . . . 2 to 3 ft.
20 Dicksonia punctilobula, 1 to 2 ft.

Collection No. 2

For Dry, Shady Places

35 Fine clumps for $5.00

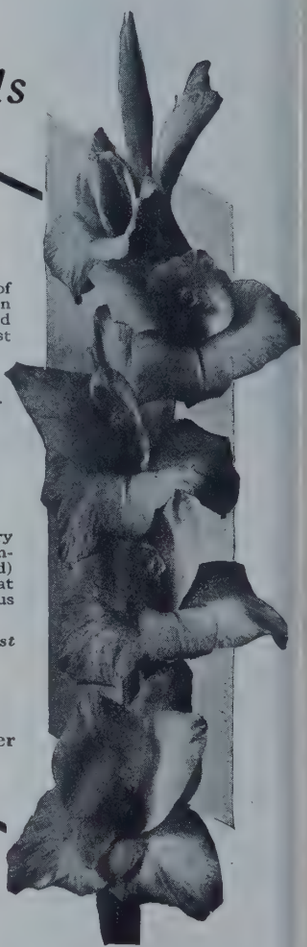
10 Aspidium accostichoides . . . . 1 ft.
10 Aspidium marginale . . . . 1 to 2 ft.
10 Dicksonia punctilobula, 1 to 2 ft.
5 Osmunda Claytoniana . . 2 to 3 ft.

Many other worth-while Ferns for a great variety of purposes and different soil situations are fully described in my *free catalogue*. A copy of it will gladly be mailed to all interested especially in naturalistic type of gardening. Please mention Garden Magazine when writing.

EDWARD GILLETT
Fern and Flower Farm
3 Main Street - Southwick, Mass.

Kemp's Wonder Glads

Pink Wonder,
White Wonder,
Early Snowflake



Every reader of Garden Magazine should plant some of these Wonder Glads. They represent the last word in Gladiolus Hybridization. Their enormous flowers, refined colors, and attractive types make them among the most desirable modern Garden treasures. The modest prices will permit the Garden Lover to purchase them in quantity. Plant them from April to July and you will have a long season of the finest flowers for garden or house.

Special Introductory Offer

50 Kemp Wonder Glad Bulbs $1.75 Postpaid

To give Garden Magazine readers an opportunity to try some of Kemp's Wonder Glads, I will send 50 good blooming size bulbs of best named varieties (not labelled) for $1.75 postpaid, east of the Mississippi. West of that and Canada, $2.00 postpaid. The best Gladiolus offer of the year.

Exhibition Dahlias, Best From East and West

J. A. KEMP
Glad-Dahlia Specialist
Little Silver N. J.

"Eldora"
No. 177

A new Kemp Wonder Glad. A prize winner. The large flowers present a striking combination of Buff and Salmon, flaked Red. The blossoms are four inches and more across, 4 and 5 open at a time. Long spikes. Full description of Eldora and our other new sensational Glads in our 1924 Catalogue.

Send for 1924 Lists
Glads—Dahlias, Either or Both

"Eldora"

A Bird Sanctuary for Your Lawn

IF you will set aside a corner for the birds—you will be surprised at how quickly they will accept your hospitality.

We have compiled a collection 2 each of 5 bird-attracting shrubs from a list recommended in Government Bulletin No. 621. These shrubs should provide food for them both Summer and Winter, besides adding an attractive planting to your lawn.

2 Red Osier Cornel	3-4′	$ .70	$1.40	2 Fragrant Sumac	3-4′	$1.00	$2.00
2 Spice Bush	3-4′	1.00	2.00	2 Sheepberry	4-5′	1.10	2.20
2 Buckthorn	3-4′	.60	1.20	Total value at catalogue rates			$8.00

A Bird Garden of 10 Shrubs for $7.50 Double quantity $14.50

Why not order this list to-day for April planting and enjoy the songful appreciation of your feathered friends.

Ask, too, for Complete Illustrated Catalogue G.

Moons' Nurseries
THE WM. H. MOON CO.
MORRISVILLE PENNSYLVANIA
which is 1 mile from Trenton, N.J.

Natural Size Photograph of

Glory of Leiden Narcissus

DUBBED the "King of Daffodils," a strong grower, with massive flowers of great substance, boldly tilting upwards on strong stems, challenging admiration and comparison with more modest varieties. Glory of Leiden, big and beautiful, seems conscious of its superiority in size, strength, and durability. It comes unscathed through the vicissitudes of unseasonable weather that dim the beauty of more delicate sorts. It can always be depended upon as a "show flower" and to be the surprise and envy of Daffodil loving visitors. The enormous trumpet is rich yellow, the petals broad and rounded, of lighter shade with deeper yellow pencilings. Whether for pot culture, flower beds or borders, it is always uniformly effective.

$1.50 for 10 Bulbs, $10.00 per 100; Blooming Size Bulbs.

American Bulbs — Superior Quality

I grow Glory of Leiden and over a hundred other varieties of Narcissi—Daffodils—Jonquils, right here in good old U. S. A. No better bulbs are grown anywhere. All factors being equal, why not support home production, since imports will be impossible anyway, beginning with 1926? Ask for my list. Fill out the coupon. Those remitting with order (in place of C. O. D.) will find some extra bulbs by way of cash discount. *Send no money*—pay the postman when he delivers the bulbs—MAIL THE COUPON.

GEORGE LAWLER, *Bulb Grower* **GARDENVILLE, TACOMA, WASHINGTON**

CUT OFF HERE. MAIL TO-DAY!

P. S. I also specialize in Gladioli and Japanese Iris. Of the latter I have, perhaps, the greatest collection of named varieties in America. Special descriptive booklet free on request.

GEORGE LAWLER, Gardenville, Tacoma, Washington.

Please send me C. O. D. 10 Bulbs for $1.50 charges prepaid.

Please send me C. O. D. 100 Bulbs for $10.00 charges prepaid. I will pay the postman or expressman the above amount on delivery.

Name .....

Address (Street) .....

City ..... State .....

The Delights of "Old-Fashioned" Flowers

Fashions come and fashions go, but in the garden, "old-fashioned" flowers triumphantly survive many "new fangled" styles of gardening. Of long life, faithful bloomers, the old favorites continue to spread cheer and color from June until frost. Here are a few bound to please:—

Superb Hollyhocks

Our strains stand for very much larger flowers of perfect double make-up. There are more flowers per stalk and the stalks last longer. **Separate colors as follows:** Maroon, Pink, Red, White and Yellow. **Extra-selected field-grown roots, each 20c; dozen, $2.00; 100, $12.50. Mixed Colors,** each, 15c; dozen, $1.50; 100, $10.00. For single Hollyhocks, please consult free catalogue.

Lily of the Valley *and Violets*

A combination that lends a new meaning to the word "charming." The intermingling of the blue Violets with the chaste white Lily of the Valley sprays is simply enchanting.

Strong, American grown, giant-flowered Lily of the Valley, field-grown clumps, each 30c; dozen $3.00; 100, $22.00.

Double English Violets of giant size and exceptional fragrance, each 20c; dozen, $2.00.

SPECIAL OFFER. One dozen clumps of Lily of the Valley, and one dozen English Violets by express for $4.00.

A Garden of Fifty Hardy Plants for $5.00

Fifty husky plants of very best sorts among Aquilegias, Larkspurs, Hollyhocks, Poppies, Phloxes, Irises, Canterbury Bells, Coreopsis, Shasta Daisies, Hardy Chrysanthemums. Not more than 5 plants of any one sort, **for $5.00.** A border or bed that will give you joy for years to come.

Please ask for Catalogue No. 110, which you'll find a store house of many similar offers in fruits and flowers.

LOVETT'S NURSERIES Box 125 Little Silver, New Jersey

Sow Sparingly; Water Freely

Most amateur gardeners sow seeds too thickly. The little plants come up fighting each other for sunshine and nourishment when all their energy should be spent in growing. To learn just how to plant seeds, how to water and spray and prune to get the finest vegetables and flowers, send for this book

"Making the Garden Grow"

written by a well known authority on horticulture and printed by us for all garden lovers. 48 pages with half-tones in three colors showing detail of gardening operations.

A great help in making any garden grow is our

GOOD LUCK *Garden Hose*

a strong, lightweight, medium priced hose for general use around lawn, garden and garage. GOOD LUCK is one of our three famous brands of ⅝ths hose. The other two are BULL DOG the strongest and longest-lived hose on the market, and MILO a cord hose which will not kink.

Send 10 cents in Stamps

for garden book. We will take the liberty of enclosing some of our literature about the choice and care of garden hose.

BOSTON WOVEN HOSE & RUBBER COMPANY

156 Portland St. Cambridge, Mass.

"Watched by Wild Animals" by ENOS A. MILLS *Net $2.50*

Your Garden Treasures--

especially the rare, old Boxwood, deserve the greatest care. A life-time's experience in moving hedges has earned us the confidence of many Boxwood owners. If you contemplate transplanting your Hedges or Clumps, please consult us. By means of special patented apparatus we move old Boxwood at any time of the year without disturbing the roots. *All work is guaranteed!* We also specialize in Putting Greens, Consulting Service. About 300,000 plants of Boxwood suitable for edging for sale. Price on request. Your inquiries will be appreciated—please mention G. M.

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St. Martins and Gravers Lane, Chestnut Hill, Philadelphia, Pa.

The new STAYTITE Handle, on all Pennsylvania Quality Mowers makes them easy to identify.
Two bolts on the handle bars take up any play due to shrinkage of wood.

At Hardware and Seed Stores

Send for folder "The Care of Your Lawn"

PENNSYLVANIA LAWN MOWER WORKS

1635 North 23rd Street, Philadelphia, Pa.

From Ocean to Ocean for Three Generations:

Hammonds Gold Medal Insecticides

KEEPING faith with American Planters for nearly half a century is an achievement in itself. After serving continually and effectively for over 40 years, Hammond's Insect Remedies and Preventatives rank highest with both the public and our dealers.

We are entering a new season of greater helpfulness. The compounding of our various products is based upon a thorough knowledge based on years of conscientious study and persistent experiments. A life time's work and pride in performance records stands back of every Hammond package—no matter what it contains.

Hammond's Slug Shot continues to serve the nation as the old reliable potato bug remedy. Quite harmless to bird, beast or man, it surely kills the destructive larva of the potato beetle and other leaf chewing insects. Comes in various sized packages for gardens of various dimensions. For economy buy it in quantity.

Hammond's Thrip Juice. This is a Contact Insecticide. It was first used in 1883 for the Vine Hopper (or Thrip) on Grape Vines, the Aphis or Lice, Thrip, some Caterpillars, Soft Scale, and certain other insects of this class on Roses, Chrysanthemums, Carnations, Grapes, Cherry Trees and Apple Trees.

Hammond's Grape Dust is a fungicide. Whether used in its original powder form or as a spray in water, it will be found equally effective in controlling mildew, both in the garden and under glass. It first made good over thirty-five years ago, on Grapes and Roses in California. To-day it helps everywhere.

Hammond's Copper Solution looks back over a quarter century's satisfactory service to growers of Grapes, Pears, Gooseberries, and other fruits subject to fungous attacks. It also prevents black spot of Roses, Carnation rust, blight, mildew and other diseases to which plant life is subject. A useful fungicide.

SOLD BY THE SEEDSMEN OF AMERICA

THE GLARER THE QUANTITY, THE SMALLER THE COST

All Hammond Insecticides are put up in handy packages, varying in size from the small cans or cartons required by those tilling small areas to large cans and barrels intended for the professional gardener. All Hammond Dealers will be glad to furnish you full details which are also contained in our free booklet mentioned below. Besides the four standard insecticides described above, the *Complete Hammond Line* includes *Horicum* for fighting San Jose scale; *Bordeaux Mixture* to fight blight; *Scrofularia Powder* against Carpet Beetle, Bed Bugs, saves furs and woolen goods; Fluid *Tobacco Extract* and *Kerosine Emulsion.*

"Insects and Blights"—a helpful book on the subject—gladly mailed FREE

Three generations of American gardeners have looked upon our pamphlet as a trustworthy guide to end insect troubles. It states in plain terms how to counteract or prevent them effectively. It will be a pleasure to mail a copy to all interested in this vital garden, field and orchard work.

Hammond's Paint & Slug Shot Works
Beacon **New York**

When It Comes to Foundation Planting

Individual Homes require settings best adapted to the grounds and architecture of the house. For this reason no general advice can be given as to *how* to clothe the foundations. But we are prepared to submit suggestions designed to fit the individual case if you will advise us of your preference of plant materials.

Three groups of plants may be employed:—

1. Deciduous shrubbery which drops its foliage during the winter.
2. Evergreen plants, both shrubs and trees, that remain beautiful the year round.
3. A judicious mixture of both of above, a combination affording more life and color than either of above *alone!*

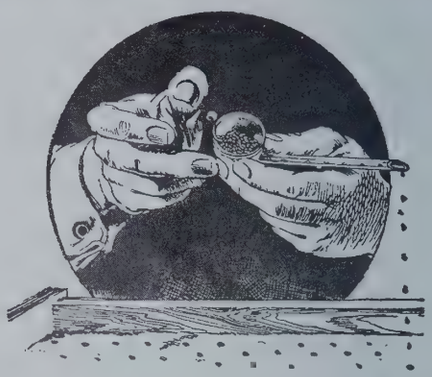
Whatever You Choose We Can Help

The combined resources of our 800 acre nurseries embrace a great variety of hardy plants, shrubs, or trees useful for ornamentation of American Home Grounds. Nearly a century's experience in filling the wants of the garden loving public has taught us to provide the logical plant materials for different sections and purposes. Let our free catalogue acquaint you with all we grow. Those planning Lilac Gardens are referred to our special Lilac Advertisement page 13 March Garden Magazine.

AMERICAN NURSERY COMPANY

70 East 45th Street **New York City**

Trees and Shrubs **Hardy Garden Plants**
Evergreens **Roses—Vines**
Small Fruits—Fruit Trees



Indispensable!

THE

Sowrite Seed-Sower

Sows Seeds at a Touch!

Unapproachable in Simplicity of Operation. Economy of Time and Assured Results

THE professional gardener and even more so the amateur has long felt the need of an instrument to enable him to sow the finest seeds with the same precision and assurance of success as the larger ones.

The Sowrite Seed-Sower does this—for it drops the seed with such accuracy that perfect development of each plant is assured and the trouble of transplanting is minimized.

Its value to you is tremendous—since it assures the success of your garden!

HOW IT OPERATES

At the bottom of the seed-holder is a pear-shaped opening regulated by a spring, exposing an opening corresponding in size to that of the seed to be sown.

The Seed-Sower is held in the left hand with the feeder-tube extending over the back of the hand. A light tapping with the second finger of the right hand on the end of the second finger of the left gently impells the seed through the tube in regular order. (See illustration.)

Just a suggestion: When ordering one for your own use, why not one or more as welcome gifts to your friends.

Sent anywhere postage prepaid on receipt of price

ONE DOLLAR

One Week Later—Here the plants are coming up. Each separate—no waste of seed—no waste of time or plants.

PLEASE USE THIS COUPON WHEN ORDERING

MAX SCHLING 785 FIFTH AVE. NEW YORK CITY

I enclose herewith_____dollars by check, money order, cash for (how many)_____Schling Seed-Sowers, to be sent to me postpaid.

Yours truly,_____

Address_____

G. M.

Melrosine

It Kills Rose Bugs

And It Does MORE!

Though primarily recognized as the chief exterminating agent for Rose Bugs, Melrosine's good work goes much further. It kills that difficult pest, the black Aster Beetle (Blister Beetle) and of course, Potato Bugs, Striped Cucumber Beetle, etc; in short it is

Fatal to Every Bug it Touches

Besides making short work of Bugs, Melrosine is a combined cleansing and disinfecting agent. It opposes many forces detrimental to vegetation, for by keeping the plants in healthy condition it enables them to resist disease. Melrosine, being a perfect contact insecticide, naturally also disposes easily of all soft-bodied insects.

Ask Your Dealer for it

Be sure to ask specifically for *Melrosine!* It is sold by leading horticultural supply stores. If your dealer cannot supply it, trial can will be mailed on receipt of 60 cents. Descriptive folder on request.

The Garden Chemical Company

Sole Manufacturers of Melrosine and Lotol

Park Ave. & 146th St. New York, N. Y.

PLANT-AID

TRADE-MARK

Send for an Attractive Can of Plant-Aid and be Glad!

Plants cannot flourish without food.

Plant-Aid 45 is, we believe, the most highly concentrated plant food on the market; odorless, refined, clean, the contents of a four or five pound bag of fertilizer purified, concentrated, packed in a neat pound and a half container—45% plant food.

Easily Used, add Plant-Aid to the water when watering or apply directly as a powder.

Economical, pound and a half tin for a dollar bill—three containers for two dollars.

Treat your house plants, your porch and garden flowers also!

Guaranteed, if you are not satisfied your money will be cheerfully refunded.

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More and Better Plants and Flowers—Use Plant-Aid!

Send Order To-day!

The Plant-Aid Company
Box 258 **Norfolk, Virginia**

I am enclosing ..... dollars. Please send me ..... packages of Plant-Aid 45, as described and guaranteed.

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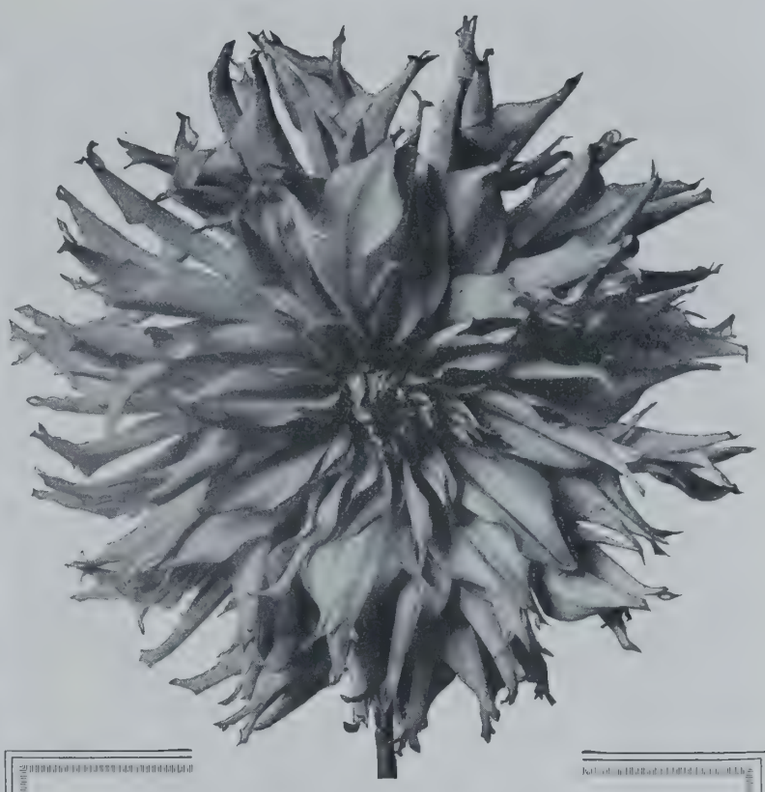

Novelties—*and the Test of Time*

TO DISCOVER *worth while* new plants I consider one of the chief pleasures of my life. Recognizing merit in novelties is largely a matter of intuition and experience. To-day, most Totty novelties represent milestones on the road of horticultural progress. Dickson's, Pernet's and Hill's famous Roses, the Wells and Pockett Chrysanthemums, Novelties in Dahlias, Carnations and Hardy Plants from everywhere—the newcomers sponsored by Totty's have stood all tests and have brought delights to thousands. With the help of the world's foremost originators I hope to promote still greater garden pleasures in the future.

Charles H. Totty

A Few Outstanding Novelties for 1924

DAHLIA, Lady Elizabeth

A distinct new break in Hybrid Cactus Dahlias, resembling the Hairy or Plume variety of Chrysanthemum. The tips of quilled petals being split, giving the flower a very shaggy appearance. Color, clear canary-yellow overlaid with bronzy pink. Very free flowering. Price, **$10.00** each.

The Garden *ROSE* Novelty **"Sensation"**

For years we have looked for a *true crimson* rose of *enduring* color and freedom of bloom. For several varieties in cultivation we can claim *either* characteristic, but in "Sensation" we find *both*, and in a marked degree. Of free-flowering habit, and exquisite fragrance. Price: Two year old POT PLANTS, April and May delivery, **$2.50** per plant, **$25.00** per dozen.

VIOLA, Jersey Gem

A great acquisition for edging and bedding purposes. Blooms from May until late fall. The flowers are large, with daintily fluted petals. The color is pure violet without other shading. The fragrant flowers are borne on stems about 6 inches long. Six for **$3.00**; Dozen **$5.00.**

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Charles H. Totty Co., Madison, New Jersey

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Looking Ahead—

A Reminder, A Warning, An Invitation

DAFFODIL time is here, and besides bringing gentle Easter greetings, they, this year, nod a reminder and a warning. The present flowers *remind* us that but two short years intervene before further importation of Bulbs is imposible. The latest reports from Holland sound a *warning*. On account of last fall's discouraging weather, the crop of quality bulbs will be very short.

There is no question but that all *good* Daffodils will be sold out long before the end of the season. Spring Glory, King Alfred, Treserve, Golden Spur, and many other desirable varieties will be very scarce, because of exceptionally heavy sales last fall. All that has been said applies particularly to heavy, double nosed quality bulbs, bulbs of the Zandbergen quality.

Bulbs In a Class *All Their Own*

The *first* part of the invitation is to *come to see the Daffodils* blooming at the hillside of Tulipdom. Above we illustrate a typical clump of the kind you will find scattered over a hillside by the hundreds. Nearly 200 distinctly meritorious and worth-while varieties await your inspection during the later part of this month.

The *second* part of the invitation is our earnest request that you *write soon for our catalogue*, designed to introduce to you the choicest Holland product in Daffodils, Tulips, Hyacinths, and all those other messengers of spring that combine to turn rather backward and dreary spring days into a source of genuine delights.

ZANDBERGEN BROS., *"Tulipdom"*

Oyster Bay, Long Island, New York

Nurseries at Valkenburg, near Leiden, Holland

Choose Evergreens Wisely

All the exquisite beauty of Evergreens is shown in natural colors in Hill's 1924 Evergreen Catalogue. We will gladly mail you a copy entirely free.

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are grown by specialists. Only the choicest selected, sturdy trees are sent out from this Nursery. Since 1855 we have been growing Evergreens exclusively.

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"Baby" Collection of Hardy Perennial Phlox

I call 'em Baby Phlox to distinguish them from the older field-grown clumps, although they are husky youngsters two to three months old. Given reasonable care, every plant will develop a big head of flowers this summer, although the plants will not reach their normal height.

This collection of a dozen plants of joyous summer color contains two each of the following six choice varieties:

Elizabeth Campbell, clear salmon pink.
Europea, white with crimson carmine eye.
B. Compte, dark amaranth red.
Siebold, bright orange scarlet, crimson eye.
Miss Lingard, early white with delicate lavender eye.
R. P. Struthers, rose carmine with red eye.

SPECIAL OFFER: This collection of 12 strong young Phlox plants guaranteed to reach you in good condition, for **$1.50** postpaid. Four collections for **$5.00**, sent to different addresses if desired.

EXTRA SPECIAL: For Early Orders, received before April 20th, I will include extra, one plant of the new Phlox Rosalind, old rose in color and deliciously sweet clove scented.

New edition of "Hardy Plants for the Home Garden" mailed free on request.

W. A. TOOLE, *Garry-nee-Dule*

BARABOO - - - WISCONSIN

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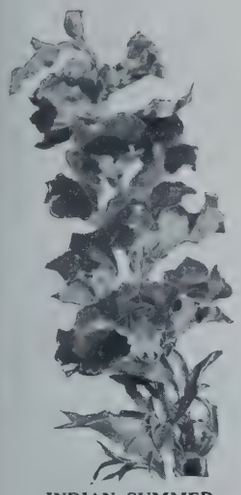
Five Schling Specialty Offers —for 1924—



INDIAN SUMMER
Most remarkable of all Snapdragons

Offer A

Indian Summer

Queen of the Marvelous New American Snapdragons—Truly Regal Both in Size and Color

Indian Summer is a snapdragon whose flower stalks rival the gladiolus in height and vigor with individual flowers over a third larger than other so-called giant snapdragons, and as for color—a rich velvety copper-red, *never before seen in Snapdragons* and indescribably beautiful. You really *must* have this remarkable novelty in your garden this season.

1 pkt. $1.00 — 6 pkts. $5.00

Offer B

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Absolutely new! Each a fresh triumph in the long series of Schling successes—Don't overlook them!

A $2.55 Value for $2.25

Yellow Annual Sweet Alyssum. Low, compact, spreading habit. Bears profusely all summer its sweet scented golden-yellow flowers. $ .25

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Erysimum Orange Beauty. Dense spikes of orange-yellow blooms — easily grown and blooms continuously. 25

Gadetia Azaleaflora. A charming novelty remarkably similar to the azalea in colors and habit—flowers all season. . . $ .35

Schling's New Giant Hyacinth-Flowered Larkspur. Excelling all others in size and vigor. Often 5 ft. tall. 35

Schling's Hybrid Senecios. Dense, long sprays of lovely chrysanthemum-like flowers, charming colors. 1.00

Special—both these flower collections—a **$6.40** value for **$5.00**

HELVETIA
New Single Aster

Offer C

Eight Favorites of 1923

Everyone of them an assured success that needs no introduction this year. To miss them this season would be a distinct misfortune.

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Schling's Marvelous New Dahlia-Zinnias. True aristocrats 6 to 7 inches across, like huge decorative dahlias. $ .50

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Schling's New Viscaria "Loyalty," with flowers resembling a tiny wild single rose, of a beautiful cornflower blue. .50

The Wonderful Blue Lace Flower (Queen Anne's Blue Lace.) Finely laced flowers, an exquisite blue shade. 50

New French Double Marigold "Dawn." Flowers resembling the most perfect double pompon dahlia. 75

Schling's New Double Hybrid Poppy. Gorgeous Pink shades, big as peonies. Will last a week in water. 35

Oenothera Lamarkiana. New giant yellow evening primrose. Remains tightly folded all day but at dusk flutters open visibly. Curiously beautiful! 25

Offer D—*Long Season Collection of Peas*

Do you know this secret? Green peas and lots of them all summer long if you follow these simple directions. Plant our collection of 6 choice varieties *all at once* this Spring, just as soon as the frost is out of the ground—and they will mature in the order named—producing a steady procession of big mouth-watering crops from about June 20th till late in August.

1 **Schling's Pedigree, Extra Early.** 2½ feet. The earliest.
2 **Gradus, or Prosperity.** 3 feet. Of delicious flavor.
3 **Sutton's Excelsior.** 1½ feet. Most productive and very sweet.
4 **Dwarf Champion.** 2½ feet. Broad pods, very sweet peas.
5 **Improved Telephone.** 5 feet. Enormous pods, peas of finest quality.
6 **Heroine.** 4 feet. Deep green, tender peas of finest quality.

½ lb. each of all 6 varieties, 3 lbs. in all..... **$1.75**
1 lb. each of all 6 varieties, 6 lbs. in all..... **2.75**
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Delivered Free within 300 miles of New York: beyond add 5 cts. per lb. for postage.

Offer E—*Perpetual Spinach.* Another exclusive novelty not obtainable elsewhere. A real spinach that you can cut and recut and it will come and come again. Not a Swiss Chard, but a big-leaved quick growing Summer and Fall spinach which takes the place of all other varieties. A $1.00 package will supply your table all summer.

N. B. Send for our catalogue **"Book for Garden Lovers"** illustrated in color. Free with order or 25c the copy.

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L. Polyphyllus, Clear blue.
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L. Roseus, New sort of beautiful rose pink shade.

Price, any variety, $3.00 per doz.; $20.00 per 100.

Rare New Foxgloves Digitalis Shirley Hybrids

Produced by the Originator of the Shirley Poppies

We were able to buy some of the first seed offered by the originator a year ago and now have a fine lot of field grown plants of the Giant Shirley Foxgloves. They are a genuine "Shirley" production of extraordinary size and vigor, growing 6 to 7 feet tall. The flower-heads are over 3 feet long, crowded with big, bell-shaped blossoms. Colors range from white and shell-pink to deepest rose, many attractively dotted with crimson or chocolate. Furthermore, they are more apt to be of perennial habit than the old-fashioned Foxgloves. This season our stock is limited and we advise you to buy early before we are sold out.

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The Wayside Gardens Co.

Largest Growers of Hardy Plants in America

Mentor. Ohio.

E. H. Schultz, Pres. J. J. Grullemans, Sec. Treas.

Dogwood, the Showiest of Spring Flowering Shrubs

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2. *Soil:*

Rosedale has the best nursery soil in the world, with just enough clay to hold a solid ball of earth about the roots. This assures the safe shipment of Evergreens, even for long distances. We have delivered large Evergreens by truck on which the ball of earth has weighed a ton—and it didn't break!

3. *Buying Direct:*

We are doing our part to reduce the high cost of living by selling *direct* to the customer at cost plus *one* reasonable profit. You save money by ordering from Rosedale.

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We have many words of praise from our customers for our careful and scientific packing which insures the life of the Trees and Plants in transit.

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The State Inspectors marvel at the freedom which Rosedale products enjoy from insect pests and diseases. Visitors often exclaim: "How clean and healthy your stock looks!"

6. *Good Assortment:*

Although leading Specialties at Rosedale are Evergreens, Roses and Peonies, the Rosedale assortment is one of the most complete in the United States. It includes a full supply of Deciduous Shrubs and Trees, including Fruit Trees of large size.

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Our service does not end with the shipment of your order. Our literature, sent free, is packed with helpful pointers. These we gladly supplement with a personal letter dealing directly with your problem when occasion demands. We have an enduring interest in your success.

Write for Spring Catalogue—To-day!

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"Outfitters for the Home Grounds"

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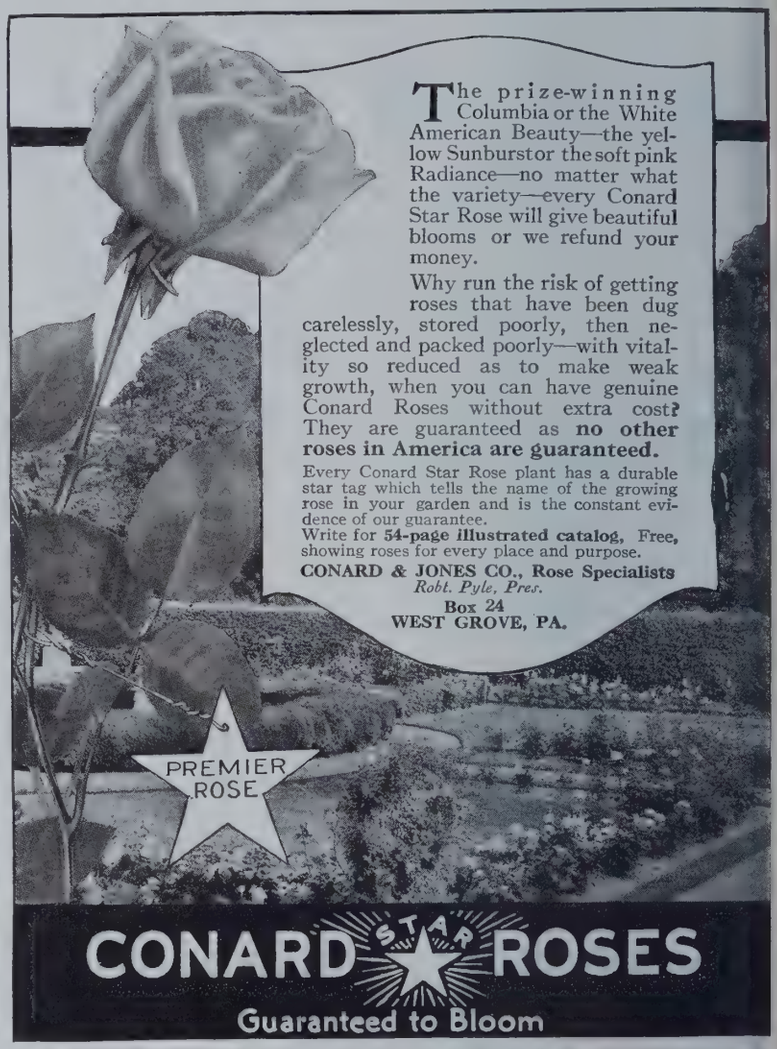
"Prices as Low as Consistent with Highest Quality"



The prize-winning Columbia or the White American Beauty—the yellow Sunburst or the soft pink Radiance—no matter what the variety—every Conard Star Rose will give beautiful blooms or we refund your money.

Why run the risk of getting roses that have been dug carelessly, stored poorly, then neglected and packed poorly—with vitality so reduced as to make weak growth, when you can have genuine Conard Roses without extra cost? They are guaranteed as **no other roses in America are guaranteed.**

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Write for **54-page illustrated catalog, Free,** showing roses for every place and purpose.

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Robt. Pyle, Pres.
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WEST GROVE, PA.

Let us help you to a real "old-fashioned" border like this!

Our "Artistic" Border, 50 feet long by 4 feet wide, holds about 200 plants, and cost $30.00 only. Among other things, it contains single and double Hollyhocks, Larkspurs, Foxgloves, Phlox, Iris, Pinks, Columbines, Sweet Williams and a hundred other varieties arranged according to color, flowering season, size, etc. A perfect picture in your garden to last for years will be the result if you allow us now to plan a scheme, to be carried out this spring.

A Real Rock Garden at Small Cost

A Ten Dollar ($10.00) investment will start you a ROCK GARDEN consisting of 56 strong plants to be set out at random among a small collection of rocks.

WE specialize in ROCK GARDENS and OLD FASHIONED HARDY PLANTS

Write for our Catalogue TO-DAY. The value of the book forbids its indiscriminate free distribution. Send 10 cents for it to-day, which we will refund on first order.

PALISADES NURSERIES, Inc., Perennial Growers, Sparkill, New York

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THE GARDEN MAGAZINE

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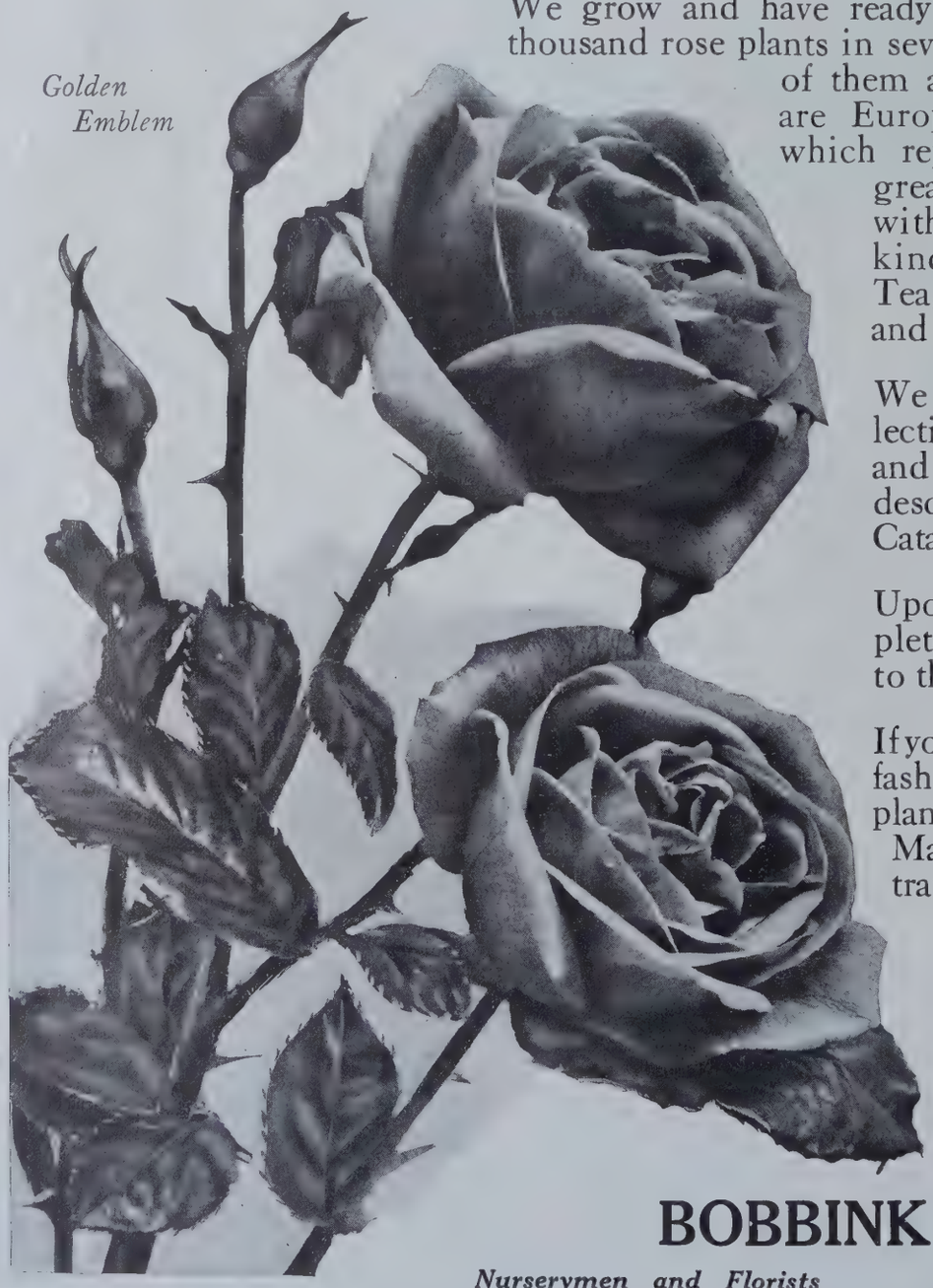
ROSES

THIS year our descriptive New Rose Catalog, revised and enlarged, is more complete than any rose catalog ever offered to Rose Lovers. It has 63 pages replete with illustrations and descriptions of the largest and most complete collection of Roses in America. Seventy-five varieties of Roses are portrayed in color.



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We grow and have ready for delivery several hundred thousand rose plants in several hundred varieties. Many of them are new and rare, among them are European and American novelties which represent the last word of the greatest hybridizers in the world, with the popular everblooming kinds leading, such as Hybrid Tea, Tea, Pernetiana, Polyantha, and many other kinds and species.

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BOBBINK & ATKINS

Nurserymen and Florists **Rutherford, New Jersey**

The Garden MAGAZINE

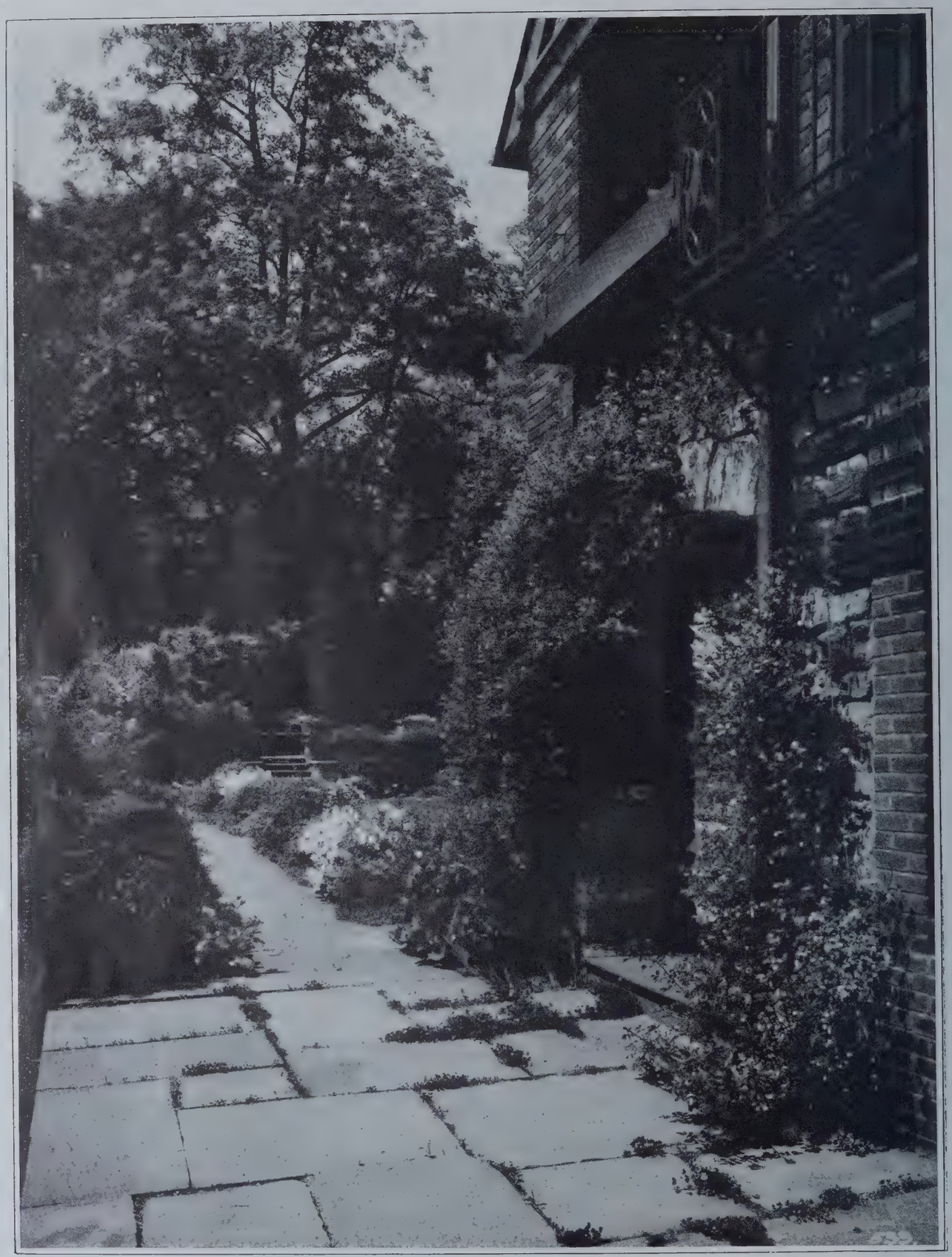
Vol. XXXIX, No. 2 — April, 1924

Roger B. Whitman, Photo.

"OH, HUSH, MY HEART, AND TAKE THINE EASE,
FOR HERE IS APRIL WEATHER!
THE DAFFODILS BENEATH THE TREES
ARE ALL A-ROW TOGETHER."

Lizette Woodworth Reese

The gardener in temperate climates is grateful to winter when, after its beneficient pause, life again streams up, endowing the earth with fresh vigor and beauty. Garden of Mrs. Irving Cox at Millneck, L. I.; designed by Isabella Pendleton



Harry G. Healy, Photo.

"SURE, AFTHER ALL THE WINTHER,
AN' AFTHER ALL THE SNOW,
'T IS FINE TO SEE THE SUNSHINE,
'T IS FINE TO FEEL ITS GLOW."
Denis A. McCarthy

"Nature never tolerates a straight line," Hopkinson Smith once said with an artist's acute perception of truth, and here in the Bronxville (N. Y.) garden of Mr. Leonard Kebler she has been at work softening away harshnesses and imbuing an initially formal plan with mellow vigor which teases even the flat flagstones out of a cold symmetry into semblance of life.

Arthur G. Eldredge, Photo.

"LATE WERE WE SLEEPING
DEEP IN THE MOLD,
DREAMING OF LIGHT—
RAINDROP AWOKE US,
ZEPHYR BESPOKE US,
BOBOLINK CALLED US—
THEN WE CAME."

Arthur Guiterman

Scattered among the Hemlocks are little colonies of Narcissus, gleaming white against the shadows toward which they seem to peer as if pleased at their escape. In the garden of Mr. Bayard Thayer at Lancaster, Massachusetts

THE MONTH'S REMINDER—APRIL

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How to Use This Guide. When referring to the time for outdoor work of any sort latitude 40 at sea level (i. e. New York City) in a *normal season* is taken as standard; but at best dates can only be approximate. Roughly, the season advances or recedes fifteen miles a day. Thus Albany, which is one hundred and fifty miles from New York, would be about ten days later, and Philadelphia, which is ninety miles southwest, about a week earlier. Also allow *four* days for each degree of *latitude*, for each five degrees of *longitude*, and for each four hundred feet of *altitude*.

Details of *how to do* each item may be found in the current or back issues of The Garden Magazine—it is manifestly impossible to make each number of the magazine a complete manual of practice. References to back numbers may be looked up in the index to each completed volume (sent gratis upon request); and to further help the reader we have a "Service Department" which will be glad to cite references to any special topic, if asked for by mail, and also to send personal replies to specific questions; a stamped, addressed envelope being enclosed.

THE thrilliest month of all the year for the gardener is April! Every mild day brings old friends up from their winter slumber to greet the new season so that each visit to flowerbed and border is fraught with fresh surprises. The stirring of old Mother Earth out of her long slackness gets into our very bones, we too want to be up and doing our part to hasten the summer pageant. The forehanded gardener goes out to work or supervise with a mind free to enjoy the month's activities to the full—procrastination never pays and preparedness does, so if there's anything forgotten or overlooked, buy quickly and buy the best. Besides seeds and plants, check up your stock of sundries; be sure you have bordeaux, melrosine, bonemeal, dysect, or whatever the garden is apt to require in the way of protection and of nourishment during the busy months.

Flowers and Shrubs

Vacant flowerbeds intended for bedding plants to be dug and got ready for summer occupants. Uncover beds of bulbs and rake over the surface soil to keep weeds in check.

Sweet-peas to be sown outdoors as soon as possible, so they may root deeply before hot weather overtakes them. Plant out those that have been started under glass.

Asters, and Stocks are very successful from sowings made outdoors this month; and sowings may be made of such Annuals as do not transplant very well; e. g., Mignonette, Alyssum, Poppy, Hunnemania, Eschscholtzia, Lavatera rosea, Lupinus, as well as Candytuft, Nasturtium, Centaurea, Marigold.

Plant Gladiolus for early flowering.

Plant all deciduous nursery stock as soon as possible. Two essentials for success are planting as soon as received, and putting into well prepared soil. Should the ground not be ready to receive them, heel-in and water well until they can be set out.

Stake or wire all newly planted trees, to prevent swaying by high winds. Water all newly planted material at frequent intervals if the ground appears at all dry, and winds are prevalent.

Replant and rearrange Perennials, as the new growths show through the ground to distinguish them. Give all perennial beds an application of ground bone, and point over the surface to incorporate it with the soil, but be careful not to injure dormant crowns.

Compost the winter protective materials as removed; they make fine summer mulch when decomposed.

If not already done, uncover Roses, examine for scale, and if found, spray. When the buds begin to swell, prune back the Hybrid-perpetuals to three eyes, remove all weak wood on the Teas, and cut them back one third.

Finish pruning late flowering shrubs. Prune and tie up vines on walls, arbors, and trellises.

In the Vegetable Garden

Plow or spade the earliest piece of ground as soon as it can be done without the soil adhering to the tools; when it will crumble nicely with raking, plant the hardiest of the vegetables as suggested in last month's Reminder; viz: Swiss Chard, Onions, Turnips, Kohl-rabi, Carrots, Beets, Smooth Peas, Salsify, Spinach. They will survive any belated frost and snow. Use a good seeding machine if your plantings are of any proportions. It saves both time and seed.

About a week or ten days later (as circumstances permit) these early plantings to be followed with plants of Lettuce, Beets, early Cauliflower, Cabbage, etc., from the frames after being thoroughly hardened off.

Plant for convenience in cultivating, which will mean a good deal in personal comfort before next fall. Standardize the width between rows, and so save time making adjustments on the cultivators when cultivating. Group together all early maturing vegetables, so that the ground may be used for another crop. Crops that occupy the ground all season should be arranged together.

EarlyPotatoes to be planted. Treat with formalin solution for scab (one pint commercial formaldehyde to forty gallons of water). Don't omit this; it is no longer an experiment, but a certain way of securing smooth tubers.

Vegetable roots may be set out (Asparagus, Rhubarb, Sea-kale, Chives, Horse-radish, etc.) Onions and Leeks, started indoors for exhibition, may be planted out.

Asparagus beds to be lightly forked over, and hilled up.

Succession plantings of Peas, Spinach, etc. to be made as earlier plantings break the ground.

Small sowings of herbs such as Thyme, Sage, Marjoram, Dill, etc. may be made.

Bush and Tree Fruits

New plantations of Raspberries and Blackberries to be made as soon as possible this month. Uncover and tie up to trellises or stakes those that have been laid down or buried with earth during the winter.

Plant Strawberries at once to start new plantations. Rake the mulch from established beds, and dig in well-decayed manure between the rows.

Watch the Currants as the young leaves develop (especially near the ground) for worms, spray at once as they appear, taking care to wet the under side of the leaves.

Watch for steel gray beetles on the Grape-vine leaves and pick them off into a pan of kerosene.

Fruit trees that do not bear satisfactory fruit may be grafted over to better varieties. In fact, several varieties may be grown on the same tree in the case of Apple and Pear. This work should be done before growth starts, and finished within a week after the buds swell.

Planting of young trees to be completed as soon as possible.

Examine Peach trees for borers by removing six inches of soil from around the base of the tree. Gum and "saw-dust" are the first visible signs of their presence. Clean these away, and run a wire into the holes to kill the grubs. Repeat the examination in a week or so to get later attacks.

Getting the Lawn into Condition

Clean the lawn of weeds, filling holes thus made with good soil, and reseeding. As soon as the grass is long enough to reach the blades of the machine it should be cut. Promote a strong root growth of grass by mowing frequently, but never cut extremely close.

Roll light soils where hand machines are used for mowing; but where heavy horse or power machines with a big roller are in use, enough rolling is done while mowing, and particularly on heavy soils inclined to pack and become hard.

As soon as the mud has dried up sufficiently, attend to roads, drives, and walks. Keep the original edges of these as much as possible. Use the scuffle hoe for weeds on the drive, or a good weed-killer if it can be applied without injuring the edges of the adjoining lawn. Repair ragged edges of turf by inserting pieces of sod, or by adding soil and seeding down.

Keeping Frames and Hotbeds Busy

Tomatoes, Egg-plants, Peppers, Muskmelons, and other tender plants may be still sown in the hotbed; Sweet Potatoes, put in to sprout and planted out next month; and a few Cucumber seeds for an early crop to utilize all the frame space when the other plants are set out.

Lima Beans, Squash, and the tender vegetables mentioned above may be started in dirt bands, or paper pots for setting out later.

Pansies, Myosotis, Daisies, Canterbury-bells, Aquilegias, Foxgloves, etc., carried over winter in coldframes, to be got into the beds or borders they are to occupy to give space in the frames for other purposes.

Annuals, such as Zinnias, Globe Amaranth, Miniature Sunflowers, African Marigold, Early Cosmos, Petunias, etc., may still be sown in the coldframe.

A mild hotbed made up at this time is about the best possible place to grow on Geraniums and other low-growing bedding plants that are making a great demand on the bench space in the greenhouse. With four or five inches of soil and the pots plunged to the rims, the gentle heat will set them growing apace. Keep closed for the first few days; then give air whenever possible.

Don't allow any crowding of the young plants in the frames, or weak, drawn stock will result. If in pots, take out every other row erecting a temporary frame for them rather than crowd. Seedlings to be pricked-out into other frames (or planted into flowering quarters if their hardiness justifies it) for the same reason.

Useful as these simple structures are for raising early plants for setting outdoors weeks ahead of the time they would otherwise be obtained, they become indispensable as an adjunct to the greenhouse for hardening off stock prior to planting out.

Harden all early planted material by giving plenty of ventilation on all favorable occasions. With longer days and more sun power, water will be required in greater quantity. Water thoroughly, too, avoiding the "little and often" plan which dampens the surface soil, whilst the roots of the little plants underneath are dry.

Provide plenty of covering when a cold night is expected. Weeks of hard work can be undone by one belated cold spell.

THE GREENHOUSE STILL PLAYS ITS PART IN THE GARDEN SCHEME

Plants of every description now require increased water and ventilation. Lightly shade Palms and Ferns to prevent burning.

Sow tender Annuals to prick-off when large enough to handle, and then transfer to coldframe.

Hardy Annuals, started early and pricked-off into flats, or potted, may go to coldframes to make room for other stock.

Clumps of Perennials that have been forced, to be planted out, as soon as their usefulness is past, in a small nursery where they may remain for two years to recover.

Plant outdoors during dull or showery weather rooted runners of Violets.

Hanging baskets for porches, etc., to be filled now, and hung in a cool house until they go to summer quarters. Weeping Lantanas are useful for these baskets.

Roses that are not producing well may be thrown out, the house cleaned down, and a new lot of plants put in. If the cropping system is practised, pinching should be done about the middle of the month for a crop at the end of May. Water more freely and syringe often enough to keep red spider under control. Liquid manure may be more freely given. Pot-up Rambler Roses for next year's use.

Continue rooting Chrysanthemums, pot-on early rooted ones as they show need. Avoid any check in growth through becoming pot-bound.

Carnations in benches will be benefited by a mulch of half manure and half soil to prevent the roots drying out too quickly, as they are apt to do at this time of the year. Varieties with delicate pink flowers will be better for a light shading on the glass—just enough to break the direct rays of the sun. Young plants to go to the frames to be hardened off previous to planting outdoors; which, however, may be done soon after the middle of the month if weather conditions permit. Turn over at the first opportunity the soil to be put into the benches for the young plants.

Avoid wide fluctuations of temperature in the Sweet-pea house at this time. If buds are dropping, look carefully to the watering. Acid phosphate (an ounce to a gallon of water) is often helpful. Attend to cultivation of the soil, tying, staking, and thinning of shoots as occasion requires.

Replenishing by Cuttings etc.

Snapdragons now need more water. Cuttings put into sand in March will be rooted now, so place into small pots and keep potted-on into the next size larger, and still another one larger yet, if they make rapid growth.

Calceolarias and Cinerarias, now coming into flower, to be kept free from insect pests.

Pot-on plants that need more root space; and particularly bedding stock to be transferred to a mild hotbed (see under "Frames").

Cuttings may still be made of Coleus, Petunias, Ageratums, Achyranthes, and other bedding plants. Top-back the more advanced plants to make them sturdy and bushy, and root the tops.

Propagate Dahlias from cuttings from old plants started into growth on a sunny bench in a cool house.

All early flowering shrubs that are being forced should be placed in a cool house when in full flower. Bulbs of such Lilies as speciosum, if potted or planted in benches, will flower before those outdoors. Continue planting at intervals cold storage bulbs for a succession of bloom throughout the summer months.

Branches of Lilac bushes cut and placed in a warm room or greenhouse will produce good flowers, but the color will be white, irrespective of the normal color of the variety.

Fern spores to be sown now on sand or very fine soil in a warm, moist house; give a position somewhat shaded.

Pot-up Cannas that have been started in sand. Keep growing without a check Asters sown for early use. Maintain a buoyant atmosphere in the house containing the bedding plants if it is not convenient to make up a mild hotbed for them.

Poinsettias placed in a warm house will soon throw out young shoots for cuttings. Root these in coarse sand in a warm propagating bench.

Petunias for late use may still be rooted from cuttings. Small plants of Lobelia speciosa, may be potted-on for filling vases at the end of next month.

Bouvardia, rooted early and potted into $2\frac{1}{2}$ inch pots may be set into frames, and either grown on there, or set in the open ground as soon as all danger of frost is past.

Young plants of French Hydrangea may be moved to frames to harden-off and planted out to make fine plants by fall. Cyclamen to be kept growing in a cool, partially shaded position. Feed with liquid manure Hydrangeas to be in flower for Memorial Day.

More Vegetables and Fruits

Melons, Cucumbers, and Tomatoes for summer crops indoors to be started. Personal preference may be followed with Tomatoes, but with Melons and Cucumbers the English forcing types alone can be used.

Prune out weak wood of fruits and start late trees into growth. Tap smartly such pot fruits as may be in bloom to disperse the pollen and ensure a good set. Give plenty of water to those that have set their fruit, and syringe them each morning and not later than 3 o'clock in the afternoon. Peaches especially need a damp atmosphere; never tolerate anything approaching aridity after blooming is over. Do not thin fruits until after the stoning period. Disbudding the shoots is done by rubbing out every second growth with the finger and thumb.

SHRUBBERY PLANTINGS THAT BLEND

MARY P. CUNNINGHAM
Landscape Architect

Suggestions for Using Shrubs About the House that Group Congenially —Selecting for Harmony of Texture as Well as for Color and Form

THE most characteristic thing about a shrub is probably neither its bloom nor its fruit—but its leaves. To be sure, if you say the word "Laurel" to any one of your friends he will first picture to himself the lovely pink blossoms in mid-June. If you try him on "Hydrangea," he will see in his mind huge panicles of flowers turning papery brown as they fade. It is ten to one he will not think primarily of the dark glossy leaves that last the whole year nor will he remember that Hydrangeas are poor sticks during the long winter and that even in summer the leaves are distinctly yellow-green and coarse. Yet the bloom is with us but a few weeks while the foliage lasts for months.

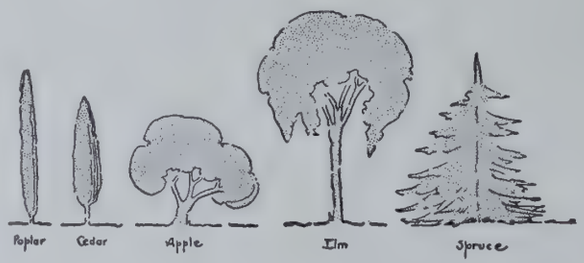
It was Charles Eliot who showed us that American shrubberies were chosen for bloom alone and that our results were not gardens but mere collections. To-day we have advanced and know how to seek and find "fall effects" in the same bush which has already served us up a good bloom. We now demand "winter effects" also so that where we once had shrubberies beautiful for only one season we now have collections containing one plant for bloom, one for fruit, another for color, and possibly one or two red-twigged plants or evergreens for winter show. This is the last word in the average American shrubbery of to-day, and note—no plant mentioned for beauty of foliage! This is one great reason why such plantings are still only "collections" for it is through harmonious foliage more than any other single element that they can be unified.

"A plant may be emphatic or subdued according to the nature of its leaves"

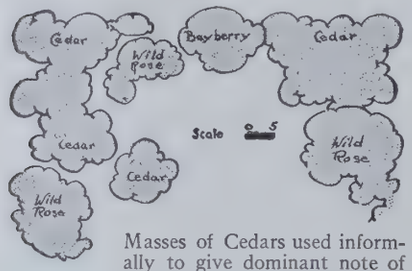
I remember one such average shrubbery in winter. At the base of a bright green house there were equal quantities each of Forsythia, Red-osier Dogwood, Rhododendron, and Barberry. There was interest for each reason—a complete assortment to be sure, and yet it was not beautiful as a bit of planting. Nor was this because it was commonplace. Picture to yourself a stretch of sea walk among masses of wild Rose and Sweet-pepper, Bayberry and Beach Plum! This, too, is common yet makes its beauty felt.

The trouble with the former is that it lacks all relation, both with its surroundings and integrally among its own parts, either of association or inherent quality. Yet with a little thought of foliage values a sense of unity could have been attained. Its winter version shows red twigs, yellow twigs, black twigs, and dark leaves with nothing in common. There is not even a predominance of one element, as there might have been by using the dark leaves with red twigs as a foil. There is no idea of keeping entirely to the dark green mass to tone down the too vivid color of the house; no appreciation of the fact that Forsythia twigs are too yellow to associate with the carmine Osier Dogwood when dignity and restful masses are desired.

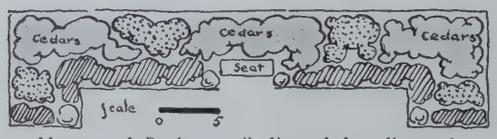
In any design we should try to relate the various parts and this may be done through their forms, their colors, and their textures. In a painting color becomes the prime factor in a



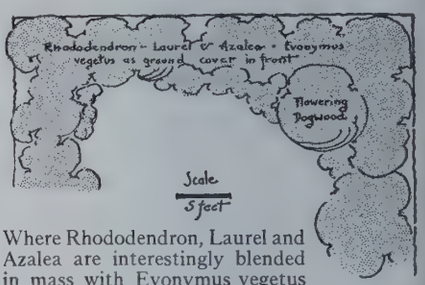
"The first thing we note about a tree is its form," and harmony of form is one of the essential considerations in all successful planting



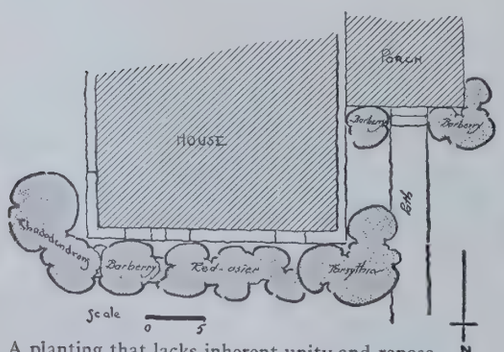
Masses of Cedars used informally to give dominant note of whole planting; one Cedar brought forward as a specimen



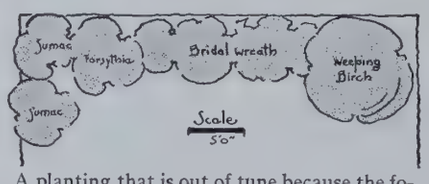
Masses of Barberry (indicated by diagonal hatch)—both the Common Barberry (Berberis vulgaris) and the Japanese (B. Thunbergi)—act as fillers in this shrubbery where Cedars, placed at the strong points in the skeleton of the planting, furnish the predominating accent. Four low Cedars (indicated by circles) are used as specimens, the two near the garden seat being flanked by Cotoneaster



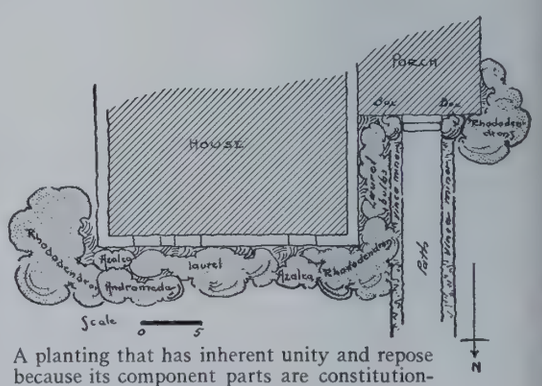
Where Rhododendron, Laurel and Azalea are interestingly blended in mass with Evonymus vegetus as a ground cover and Flowering Dogwood as a specimen



A planting that lacks inherent unity and repose because its component parts are constitutionally unable to fraternize (see description in text)



A planting that is out of tune because the foliage of the various shrubs is too dissimilar both in shape and shade to blend and "every well designed shrubbery must have one kind of plant predominate or some common denominator which will hold it together"



A planting that has inherent unity and repose because its component parts are constitutionally harmonious and have been selected with due care for color, form, and texture. (Incidentally to grow Rhododendrons successfuly close to a house requires some 3 ft. of good humus; lime is too often present in foundations)

M. E. Hewitt, photo.

A DRIVEWAY PLANTING THAT HAS SPARKLE WITHOUT DISCORD

Fine effects are not far to seek if the designer is perceptive of the possibilities of plants and places; many quite ordinary things achieve distinction, as here where Barberry, Cedars, Clematis, and Maple are understandingly associated at the Greenwich (Conn.) home of Mrs. H. W. Croft; James L. Greenleaf, Landscape Architect

composition, though shapes and textures also receive due consideration; whereas in a planting emphasis may shift from one to the other. For example, the first thing we note about a tree is its form; the first thing we remember about a flower is its color; thus:

SALVIA	LARKSPUR	SUNFLOWER
red	*blue*	*yellow*

Shrubs have not as definite individual forms as trees nor do they depend as much as flowers on the color of their bloom for their character. Their individuality and value is more in their foliage.

Why Willows are Quiet Trees

FOLIAGE means leaves. A plant may be emphatic or subdued according to the nature of its leaves. Willows, for instance, are quiet trees because their leaves are many and uniform, small and evenly distributed, and of a good green. Compare the Willow with the hardy Catalpa in the landscape, with its large scattered and showy light green leaves, and you see at once why these two trees have such different uses. The Willow can be used often and the Catalpa but rarely. We can stand masses of Willows, for they are not startling; but a Catalpa is best alone or with a background of more neutral tones.

There are as great differences among the shrubs. Compare the great compound leaves of the Dwarf Horse-chestnut with the neat simple foliage of Cornelian-cherry. The Weeping Cherry and English Hawthorn have foliage as far apart as the poles and, incidentally, how many planters do you think realize its commonplace foliage when they plant the Weeping Cherry?

Color also affects texture of leaves. Our common Honeysuckle gives neutral masses of dark blue-green that act well as a harmonizer. The garden Weigela gives a more lively mass, strongly yellow-green and coarse. It is invited not for its leaves, but obviously for its blossom—yet its foliage compared with that of the golden-leaved Mockorange seems almost reticent. Blue-green foliage is as a rule easier to use than yellow-green.

Foliage as well as bloom puts a plant in the "specimen" class or marks it as a "filler." The Flowering Dogwood is interesting enough to be used as a specimen either with masses of different plants or by itself.

Gaining Beauty in Mass

SOME plants may be insignificant taken as specimens yet when massed and used as fillers assume distinct character. Wild Roses are a case in point, also Fragrant Sumac, Gray Dogwood, and Yellowroot. Any one of these would be thin and meagre used alone, but all are among our most valued mass plants.

The same is true among the flowers. Grow a single plant of Phlox and you are disappointed. Use it with five to fifteen others and you get the real character of Phlox. On the other hand one Mullein, used at an auspicious point, is more effective than a rocky hillside quite covered.

Plants good as fillers of masses have a value not fully appre-

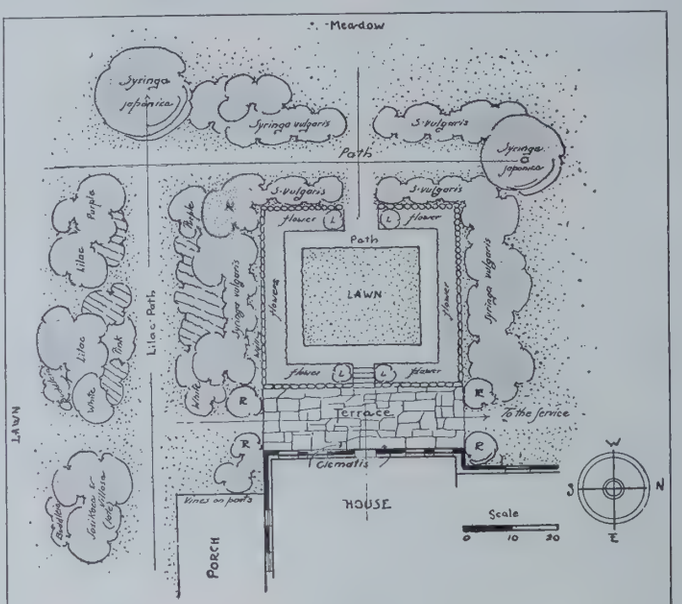
ciated. They are like the second violins of an orchestra. They give the volume of sound and accompany the theme announced by the soloist. When the soloist and mass plants play on different keys the result is inevitably bad.

Among our shrubs there are many groups from which we choose mass plants or fillers, notably the Dogwoods, Viburnums, Honeysuckles, Privets, Spireas, the Heather group; and so on. These groups contain some plants good both as specimens and fillers as, for instance, the Flowering Dogwood. Its cousin the Gray Dogwood would never be asked to sing alone, but as a thicket plant it is unrivalled, especially for native planting.

We need to employ more mass plants than we do, and fewer specimens. Every well designed shrubbery will have one kind of plant predominant, and this plant or group will form the skeleton or framework of the design.

The filler shrubs may include several kinds, but these should have some common denominator which will hold them together whether it be color, or texture, or form, or only association.

Notice that in all the illustrations the design is achieved through the foliage—by a blending or harmony of form, color, and texture. Bloom is important, form is important, and seasonal interest is important; but we design with these in mind already. The thing we disregard is foliage, whereas foliage should be the great unifying element of a shrubbery. Harmony of texture may give our present "assortments" a little of the unity they so sadly lack.



A GARDEN FRAMED BY LILACS

where enframing shrubbery is composed chiefly of Lilacs which create a pleasant unity of plant character, foliage, and bloom. Such a planting continues in flower for six weeks, and for six months supplies a good back-ground of foliage for the walled garden.

The common Lilac (Syringa vulgaris) forms the skeleton of the plan and is supplemented by hybrids with facings of Persian Lilacs (indicated by diagonal hatch), Rouen Lilac (see "R" on plan), the Lilac-flowered Honeysuckle (Lonicera syringantha Wolfi; see "L") etc. Other Lilac species used are: rothomagensis, japonica, villosa, Josikaea, persica, hyacinthiflora. Of hybrids the following: *White*: alba grandiflora, Marie Legraye, Jeanne d'Arc, Souvenir de Casimir Perier. *Pink*. Charles X, Professor Sargent, Gaudichaud, Christopher Colombus. *Purple*: Charles Joly, Ludwig Spaeth

CONGENIAL GROUPINGS FOR FOUNDATION, HOUSE FRONT, AND GARDEN

Foliage Harmony

1. Fringe tree (Chionanthus)
Lilac (Syringa vulgaris)
Common Privet (Ligustrum vulgare)
Californian Privet (Ligustrum ovalifolium)
Rose-of-Sharon (Hibiscus syriacus)
Snowberry (Symphoricarpos racemosus)
Tree-peony (Paeonia moutan)

2. Stephanandra (Stephanandra flexuosa)
Japan Spirea (Spiraea Thunbergi)

3. Wild Rose (Rosa blanda)
Prairie Rose (Rosa setigera)
Shining Wild Rose (Rosa nitida)
Common Wild Rose (Rosa virginiana)
Japanese Climbing Rose (Rosa multiflora)
Father Hugo's Rose (Rosa Hugonis)
Bayberry (Myrica carolinensis)
Sweet Pepper-bush (Clethra alnifolia)

4. European Hornbeam (Carpinus betulus)
Japanese Quince (Chaenomeles japonica)
Bayberry (Myrica carolinensis)
Bittersweet (Celastrus scandens)
Red Cedar (Juniperus virginiana)
Low Cedar (Juniperus communis)

5. Azalea (Rhododendron calendulacea)
Laurel (Kalmia latifolia)
Sorrel-tree (Oxydendrum arboreum)

6. Symplocos (Symplocos paniculata)
Japanese Privet (Ligustrum ibota, L. Regelianum)

7. Tartarian Honeysuckle (Lonicera tatarica)
Lilac-flowered Honeysuckle (Lonicera syringantha Wolfi)

8. Pearl-bush (Exochorda grandiflora)
Garland-flower (Daphne cneorum)
Mezereum (Daphne mezereum)

9. Alder (Alnus incana)
Spice-bush (Benzoin benzoin)
Witch-hazel (Hamamelis virginica)
Bottle-brush (Fothergilla major)
Leather-wood (Dirca palustris)

10. Mockorange (Philadelphus grandiflora)
Deutzia (Deutzia Lemoinei)
Woody Hydrangea (Hydrangea arborescens)
White Kerria (Rhodotypos kerrioides)

11. Nannyberry (Viburnum lentago)
Gray Dogwood (Cornus racemosus)

Association of Physical Needs

Rhododendron	(Rhododendron maximum)
Azalea	(Rhododendron arborescens)
Blueberry	(Vaccinium corymbosum)
Laurel	(Kalmia latifolium)
Heather	(Calluna vulgaris)
Lily-of-the-valley Shrub	(Pieris floribunda)
Enkianthus	(Enkianthus campanulatus)
Leucothoe	(Leucothoe Catesbaei)

Association of Native Planting

Staghorn Sumac	(Rhus hirta)
Aromatic Sumac	(Rhus aromatica)
Red Cedar	(Juniperus virginiana)
Sweetfern	(Comptonia asplenifolia)
Bayberry	(Myrica carolinensis)
Wild Aster	(Aster novae-angliae)
Goldenrod	(Solidago canadensis)
Low Cedar	(Juniperus communis)

Association of Old-Fashioned Gardens

Lilac	(Syringa vulgaris)
Mockorange	(Philadelphus coronarius)
Weigela	(Diervilla florida)
Bridalwreath	(Spiraea prunifolia)
Snowball	(Viburnum opulus)
Strawberry-shrub	(Calycanthus floridus)

Association of Character

Hawthorn	(Crataegus crusgalli)
Inkberry	(Ilex glabra)
Laurel	(Kalmia latifolia)
Wilson's Rhododendron	(Rhododendron arbutifolium)
Bearberry	(Arctostaphylos uva-ursi)
Trailing Rockspray	(Cotoneaster horizontalis)
White Azalea	(Rhododendron arborescens)
Japanese Yew	(Taxus cuspidata)
Japan Barberry	(Berberis Thunbergi)

GOING WEST IN MAY!

GARDENS FROM OHIO TO THE DAKOTAS and beyond to MONTANA and COLORADO will be pictured in May GARDEN MAGAZINE, accompanied by such helpful articles as Mr. W. T. Cowperthwaite's HARDY PLANTS FOR THE NORTH-WEST, FLOWER GARDENING IN THE HEART OF AMERICA by Ethel G. Holmes, DAHLIAS FOR THE MID-WEST, CANNAS FOR KANSAS, and other topics of vital interest to gardeners in our central states.

Appropriately, too, come Mrs. Colton's suggestions on CHINTZES FOR YOUR SUNPORCH just at refurbishing season when everyone is turning with zest to renewed out-of-door living and the sunporch becomes the real living-room for the summer season.

A welcome contribution on ORCHIDS from E. H. Wilson's able pen and Mrs. Henry's ORCHIDS FOR THE AMATEUR—these are a few of the high lights of the sparkling program for May.

Charles Darling, Photo.

WHERE MAN AND NATURE MEET IN SYMPATHETIC COMPACT

"Plants may be insignificant as specimens yet, when massed, take on distinct character—wild Roses are a case in point." In this all-native planting the wild Rose, Red Cedar, Blueberry, Bayberry, and Ferns unite in a harmonious and yet sufficiently diversified whole—a happy illustration of how the natural beauty of moorland may be turned to sophisticated uses. Mr. William E. Atwood's summer home, "The Gallery-on-the-Moors," at East Gloucester; Ralph Adams Cram, Architect; Mary P. Cunningham, Landscape Architect

The National Garden Association

Formed to promote the annual observance of National Garden Week

Leonard Barron, F.R.H.S., President

Honorary Vice-Presidents: J. Horace McFarland, Mrs. Francis King, Mrs. Russell Tyson, Mrs. Thomas G. Winter, Mrs. Samuel Sloan, Mr. Frederick Newbold, Mr. Robert Pyle, Mrs. John D. Sherman.

Coöperating Societies: National Plant, Flower and Fruit Guild; American Dahlia Society; American Iris Society; Ontario Horticultural Association; American Forestry Association; Women's National Farm and Garden Association; Wild Flower Preservation Society; National Horticultural Society; The Agassiz Association; The School Nature League; Society of Little Gardens.

Easter Week is National Garden Week, April 20th–26th

Endorsed by President Coolidge and the Governors of States

Successfully Launched Last Spring National Garden Week Becomes a Recurrent Yearly Festivity Thoughout the Country—This Plan for Better Gardening and Better Citizenry, as Suggested by The Garden Magazine and Adopted by the General Federation of Women's Clubs, Now Sponsored Also by the Better Homes Association

WITH all of the many requests for Garden Week material that have come to us this year, has come also indubitable proof of the enduring and constructive worth of the plans carried out last spring. Having stood the test of twelve months, these varied activities bear convincing witness to what National Garden Week may mean to each community.

"We will feature National Garden Week as we did last year. *It is a movement which, once on its way, can never be stopped.*"

From Chicago comes this word from the member of a garden club so unique and inspiring that we are glad to quote fully the letter telling about it. If this can be done so well in Chicago, it is something that can be carried out in every large city—our correspondent writes:

> We have formed a Garden Club among the utility companies in Chicago with a membership of about 3,000, all employees of the Commonwealth Edison Co., People's Gaslight & Coke Co., Public Service Co. of Northern Illinois, and Metropolitan Elevated Railroad Company. We have Spring and Fall Flower Shows. We also have a garden library with books on subjects of interest to garden members.

Building A Nation Beautiful

MISSISSIPPI is carrying on a campaign for forming "Garden Cities." This work is conducted by H. W. Fristoe, Extension Vegetable Specialist. The "citizens" of these garden cities are the young school children of the communities. Each child between 6 and 16 years of age enrolled in the local school is given a garden 12 x 12 ft. The entire membership in each town is organized into a Garden City with a complete set of officers to handle its affairs—Mayor, City Council, Commissioners of Tools, Water, Walks, etc. The work has interested the Kiwanis and other men's clubs who are aiding with the plan. The first Garden City has 150 "citizens" and as soon as their gardens begin to produce, markets are established and the products placed on sale. Prizes are offered for the best gardens, etc. Physically, morally, and financially the plan has been a success, and the National Garden Association will gladly send to Mr. Fristoe all inquiries regarding this project.

The Valley Garden Club of Syracuse, N. Y. is urging the formation of a garden club in every town in New York State in an endeavor to make New York known as the State Beautiful. Mrs. John Muller is President of this society that will gladly help in all ways with this work. The club urges the beautification of all highways and unsightly places, stressing the importance of forming Junior Leagues among the children. If every town in the state *would* start such a club, New York would soon rival the wonderful program of Florida (see below).

From Flushing, L. I., where the entire program was carried out, comes a report of the Hospital Garden given to the Hospital by the Flushing Garden Club during National Garden Week that will be an inspiration to every garden club in the country: "There it stands, this little garden spot in its simple beauty consoling to the tired ones who have watched it grow green, and well kept and tranquil. And when we contrast it with the ugliness that would have been had not the Garden Club intervened, then surely we give thanks."

The thanks given for this garden may equally be accorded the many Bird and Wild Flower Sanctuaries established, the Childrens' Playgrounds opened up, the Tourist Camps built and beautified, and the Roadsides Planted to Beauty and Cleared of Billboards—heartening news, all of it, and making for countrywide progress and the deep, sane happiness of a nation that delves out-of-doors.

"Swat the Sign and Save the Scenery"

THE anti-billboard Campaign is growing and spreading. It has taken root in England where the London *Times* and the *Spectator* announce the names of firms agreeing to coöperate.

In Massachusetts, strict new rules have been issued by the Department of Public Works. All outdoor advertisers are required to secure a license (costing $50 which must be renewed yearly). No signs may be within 50 feet of the highway, and there are also drastic size regulations. No outdoor advertising shall be painted or affixed upon any fence or pole within 50 feet of any highway or directly on the wall of any building, with other restrictions also. That means just one thing in Massachusetts: "Billboards must go!"

In Florida the State Beautification Committee still swings far in the lead in its state-wide campaign. Its splendid program of road building and beautifying creates county commissions and in each case such committees work hand in hand with the county commissioners and all civic organizations. In this way every highway is looked after, with consequent prevention of needless cutting down of trees, planting of new trees and shrubs, preservation of all historical or beauty spots in the state. There is also embodied in this program a campaign to induce owners of certain acreages "to deed these for all time as parks for the people." Great stretches of native Pine and Cypress and other wild growth will thus be preserved. And at all times are they working for the abolishment of billboards, using this slogan "Swat the sign and save the scenery," so effectively that recently 10,000 such signs have been destroyed in four counties. To plant one million trees in the next ten years is the hope of this commission, these plantings to be supplemented with shrub-

bery and flowers. In Orange County, beds of Petunias have been set out with more than half a million plants in them, and the Beautification Committee in that county has two nurseries with more than 30,000 plants ready for setting out along the highways. Such is the broad program begun and wholeheartedly endorsed by the entire state—a challenge to every other state in the Union!

Preserving the Playgrounds of our People

NO ORGANIZATION as a whole is more keenly interested in beautification and conservation projects than the American Forestry Association, with its many efficient state branches. The Connecticut Association, with its 1,000 members, has raised a fund of nearly $5,000 for the purchase of a forest to be given to the state as a State Forest Park, and they are advocating the establishment of 200,000 acres of state-owned forests as town forests.

In New York State the Association is very active, and everyone interested in conserving trees and replanting deforested areas should get in touch with this alert organization. In Chautauqua County, alone, 10,000 young trees have been set out, the trees being provided by the state.

Few people realize just how intimately the products of the forest enter into their everyday lives. Nor do they realize the deep-seated need of conservation and reforestation. The Pennsylvania Forestry Department is issuing booklets of value and interest on these subjects that tell also of the Public Camp Grounds in the State Forests. "The State Forests are the people's playgrounds," says R. Y. Stuart, Secretary of the Department. "They are wide open for hunting and fishing and dotted with attractive play places." Does this seem a far cry from a garden? Not at all, as is evidenced by the close coöperation of this department with garden clubs in the state, aiding with the planting of trees on hillsides, along highways, and on school grounds. We will gladly forward to this department the names of any interested in this work.

Lectures and Leaflets for Garden Week

AT BUTTE, MONT., the Rocky Mountain Garden Club has arranged with the motion picture theatres to show films of attractive gardens, and are editing garden sections in three newspapers. To aid every club in the state, 9 illustrated garden lectures have been prepared by the Art in the Home and Garden Division of the Federated Clubs. To secure further information, write to Mrs. Warder I. Higgins, Atherton Place, Butte, Mont.

Of interest to every club or locality in Florida is the Illustrated Lecture on Highway Beautification prepared by the State Committee and which will be available to everyone desiring to further this movement. To secure information, please write to B. C. Riley, Director of General Extension Division, Gainesville, Fla.

Bulletins to be had:

Programs and Leaflets for National Garden Week,
Constitutions, By-Laws and Programs for Garden Clubs,
Flower Shows, An Enemy of the Greenhouse Rose, The City Home Garden, Farm Garden in the North, Pruning, Asparagus, Permanent Fruit and Vegetable Gardens.

NATIONAL GARDEN WEEK IN YOUR TOWN

Do not fear to do this lest you be alone in this work. You will find that every Garden Club, every Women's Club, The National Association of Boy Scouts, American Legion, National Congress of Mothers, and Parent-Teachers Association have all agreed to help. All that you will have to do is to start the ball rolling.

Ask every local club in your community to work with you—every fraternal organization, church society, Campfire Girls, Girl and Boy Scouts organizations. Make your campaign such as will enlist the active assistance of every individiual.

First—determine clearly what you wish to do in your locality.

Decide what is the worst feature of your town; plan to abolish it.

Decide what is the best feature, plan to preserve it.

A very good plan is to have home owners on each residence street select a distinctive flower and feature this in every garden on that street. When these flowers are at their best, the residents could hold a flower show. This would make a succession of flower shows throughout the season.

Urge Zoning laws to protect your famous buildings and residence streets from invasion by business houses.

Stress welfare plans for your city's congested districts, urging parks, play places and gardens.

Destroy breeding places for flies and mosquitoes. Start a Junior Civic League to aid in this.

Get noted speakers to address civic meetings on beautifying.

To arouse enthusiasm, arrange for pageants and flower shows.

Coöperate with the railroad to beautify your local station.

Maintain booths in city railroad stations where commuters can leave their surplus flowers for the city's sick.

Get your physicians to give health-talks on the benefit of exercise and the necessity of vegetables in the diet. Gardens supply both.

Get your Fire Commissioners to inaugurate a citywide clean-up campaign! To make a flower grow where the rubbish-pile grew before lessens fire risks!

Get your ministers to help by preaching the gospel of beauty and the peace and contentment to be found in "God's magic common things,—sunshine and fresh air" and the miracles wrought with mere earth and seeds.

If every individual in every town of every state would work to improve and beautify his community, we should have the most inspiring spectacle of history—an entire nation working to make life better and more beautiful!

What You Do Helps Your Town and What Your Town Does Helps the Nation

Address all communications to The National Garden Association, Garden City, N. Y.

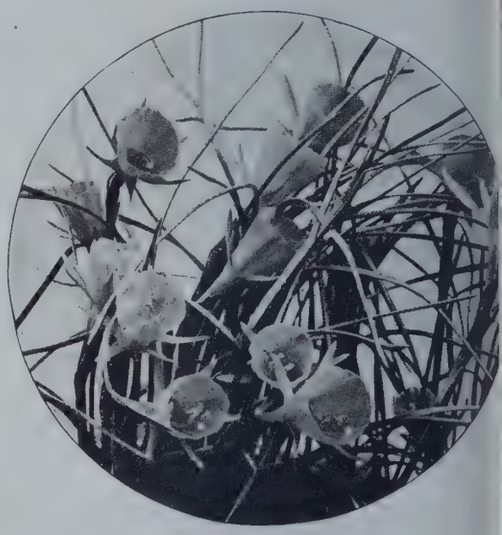
Do You Know

THE Narcissus or Daffodil family is one of the most fascinating and possibly one of the most confused of popular garden groups in ordinary parlance. There is, however, a very simple way of fixing the main distinctions in mind and this is by thinking of the tube and cup as a sort of funnel upon which the rays are slid back and forth, the relative position of rays upon funnel or tube determining the division to which the flower belongs. Roughly, the cultivated Daffodils or Narcissus are divided into three main groups: 1) The True or Trumpet Daffodils, whose crowns equal or surpass the perianth-segments in length (see Large Trumpet and Hoop-petticoat Daffodil); 2) The Star or Chalice-flowered Narcissus with crowns about half the length of segments (see N. incomparabilis center below); 3) The Narcissus in which the crown is very short or reduced to a rim (see N. poeticus below, and N. jonquilla on opposite page).

Of course there are many intermediate forms and in order to correctly classify the numerous hybrids the Royal Horticultural Society of England has adopted eleven divisions, but for general purposes it may be sufficient to hold the three chief garden groups —long-crowned or Trumpet, medium-crowned, and short-crowned—clearly in mind. In addition there is a tender, short-cupped cluster-flowered, polyanthus or tazetta group—quite distinct

A TRUE OR TRUMPET DAFFODIL
(Narcissus pseudo-narcissus)

The normal forms are all yellow but the variety shown above (Narcissus bicolor grandis) with white petals and yellow trumpet is a familiar one in gardens. Narcissus grow natively in Central Europe and the Mediterranean region ranging eastward through Asia and China to Japan, some of the hardier Trumpets being found as far north as England and Sweden



THE HOOP-PETTICOAT DAFFODIL
(Narcissus bulbocodium)

Although sometimes known as Medusa's Trumpet Daffodil, this little plant is distinctly differentiated from the other Trumpets by the rush-like, slender leaves over-topping its blooms, and by its declinate stamens

THE STAR OR CHALICE-FLOWERED NARCISSUS

A member of the medium-crowned group, Narcissus incomparabilis is by some considered a hybrid of Pseudo-Narcissus and poeticus types. A native of southern France, Spain, and the Tyrol, it has firmly established itself in the affections of American gardeners. Flowers frequently 3-4 inches across, and in many varieties including double forms; one of the larger bi-colors is pictured here

POET'S NARCISSUS OR PHEASANT'S EYE

Belonging to the short-crowned group, Narcissus poeticus from the Mediterranean region is an old favorite and readily recognized by its red-margined corona; extensively used for forcing indoors as well as in the spring garden. It has been much used also in hybridizing and is the parent of some of the most fascinating forms with larger cups as, for example, variety Horace. It is to poeticus that the legend of Narcissus has attached itself and this species is popularly spoken of as Narcissus in contradistinction to the yellow Trumpet Daffodil

Your Daffodils?

THE TRUE JONQUIL

(*left*)

One of the old-fashioned forms of the short-crowned group, Narcissus jonquilla is perfectly hardy as far north as New York though it comes from southern Europe and Algeria. Flowers markedly fragrant, leaves rush-like or terete and not glaucous. The cut flower trade erroneously uses Jonquil to mean Trumpet Daffodil

NARCISSUS TAZETTA OR
POLYANTHUS NARCISSUS

This short-cupped, cluster-flowered, tender group (whose home is the Canary Islands, the Mediterranean region and parts of China and Japan) is chiefly used for forcing. A very familiar type is the Paper-white; Grand Soleil d'Or, a fragrant yellow with orange cup shown here (at right) may be a Jonquil hybrid

CAMPERNELLE JONQUIL
(Narcissus odorus)

Although found wild in France, Spain, and eastward, the Campernelle is regarded as a natural hybrid between the True Jonquil (Narcissus jonquilla) and the Trumpet Daffodil (Pseudo-Narcissus); a fragrant and attractive hardy species, of which Queen Anne's Jonquils are double forms

NARCISSUS POETAZ

A large-flowered, fragrant hybrid of poeticus and tazetta which in its union of the good qualities of both parents surpasses either, being sweeter than poeticus and hardier than tazetta

UP-TO-DATE FINDINGS ABOUT ACID SOIL FERTILITY

H. K. BUTTON

Feeding Your Crops Correctly—How Sulphur Paves the Way for Good Potatoes—What Manure Really Does

TIME was, and not so long ago, when sulphur was regarded by the layman as a cure for the itch and by some theologians as "atmosphere" for the sub-basement of eternity. Now the up-to-date plant grower finds in sulphur the means of a controlled soil acidity as well as a probable escape, wholly or in part, from the purchase of expensive acid phosphate.

Every year the problem of intensive cultivation gets more difficult and the rewards to the skilful become greater. Stable manure is now almost out of reach, and the grower of field crops must turn to green manures and fertilizers. Now this combination sounds good, but in practice we find that continuous Potato culture demands a soil too acid for the growth of any green manure but Rye, and even that fails to decay as rapidly as it should. In short, if the land is sour enough to insure good smooth potatoes, it is too sour for the best use of green manure.

There has been only one practical suggestion as to how to meet this problem. When the farmer has raised Potatoes as long as he thinks wise, he must lime his land for a rotation. In former days lime was spread with a free hand and in large excess, but our up-to-date farmer sends a sample of soil to the soil laboratory to find the lime requirement or amount of lime that will be absorbed by the acids of the soil and leave no surplus. This done, he adds the proper amount of lime and sows his soil improvement crops which may occupy the land for one, two, or three years. When the time for Potatoes again comes around, the land is plowed and flowers of sulphur sown broadcast, 200 to 300 pounds to the acre. The reactions of the soil (bacteria) reducing this to sulphuric acid give just the necessary acidity to insure beautiful smooth potatoes.

A FINE adjustment in regulating the reaction of the soil is possible through the choice of fertilizer materials. Nitrate of soda sweetens the soil, while sulphate of ammonia leaves an acid residue. Contrary to general belief, acid phosphate has no effect on soil acidity, but potash in the form of sulphate or muriate displaces large amounts of lime and contributes to the acidity. Much of the benefit of ground bone is due to the residue of lime.

Feeding a plant correctly is just as complex a matter as feeding an animal and as yet we have touched only the beginnings of the problem. Indeed, the majority of the farmers who are actually raising crops for a living have not begun to feed their plants at all or else give them "brand" fertilizers of an unknown origin, just because they are called "Trucker's Delight" or "Potato Special" or "Harvest King." It is not to be wondered at, therefore, that ordinary people don't know much about feeding plants.

A second new wrinkle in soil fertility is the use of sulphur to make available the phosphorus in rock phosphate. Now the idea of using raw or rock phosphate has appealed to many people since Dr. Hopkins so clearly demonstrated its use on prairie soils. "Twice as much phosphorus for half as much a ton" sounds good to most of us. In actual practice rock phosphate has proved better for the Middle West than for the Atlantic Coast. Now it is shown that we can make the phosphorus available by converting the sulphur to sulphuric acid which is absorbed by the finely ground phosphate rock. In this way there is a steady supply of available phosphorus as the plant grows. Thus far, this method has been mostly used in intensive gardening, greenhouse and coldframe work, but with added experience it may spread to general field culture and reduce the costs of raising our staple crops. The present plan seems to be to use 100 pounds of commercial flowers of sulphur mixed with 500 pounds of finely ground rock phosphate. If this is mixed with manure or in a compost heap the action is more rapid as the humus furnishes food for the bacteria which oxidize the sulphur.

The phosphate rock will absorb all the sulphur and prevent any increased acidity of the soil. With rising freight rates which must increase the already high cost of fertilizers, it is believed that this method will prove of great economy.

WE MUST revise the statement, undisputed in most textbooks of agriculture, that acid soils are largely due to the decay of green manure. When a large amount of organic matter is mixed with the soil, its rate of decay depends upon the dryness of the organic matter, the intimacy of its admixture in the soil and, most of all, on the temperature and moisture of the soil. When decay is complete, nothing is left but nitrate, water, and gases. There is no permanent increase of acidity in ordinary well-cultivated soils as a result of the decay of green manure. When the soil is already acid, the decay may be checked just as vinegar preserves cucumbers, and it is probable that at such times plant poisons or toxins, which do great harm, are formed.

Green manures aid in getting hold of the lazy nitrogen of the air. Everybody knows about the nitrogen gatherers on the roots of Clover, but not so many people know of the free-living bacteria, called azotobacteria, which are able to get their energy from the decaying matter of the soil and gather their nitrogen from the soil air. These azotobacteria are closely dependent upon a sweet, aerated soil, and plenty of decaying vegetable matter; but, as these are needed in any case, we may just add a little more and set it to work to fix nitrogen.

This settles many an old dispute as to the ability of non-legumes (as Oats or Rye) to add nitrogen to the soil, and we may safely say that this class of manure at least causes nitrogen to be added to the soil. It also explains the effectiveness of stable manure which has long been known to be out of all relation to the amount of plant food contained. When we apply stable manure we not only apply the 10 pounds of nitrogen that the chemists can find but we apply also several hundred pounds of fuel for the bacteria which feed on the dissolved and decaying fibers and rustle their own nitrogen, which, like all thrifty beings, they leave behind them as a legacy to all the earth.

"IT'S JULY IN MY GARDEN; AND STEEL-BLUE ARE THE GLOBETHISTLES"

So writes the poet Vernède of this wildling Echinops from southern Europe which has become one of the ornaments of the American mid-summer hardy garden. (E. ritro tenuifolius shown above; see description on page 122 of its use in Mr. Duffy's garden)

PLANTING FOR "AFTER JUNE" BLOOM IN THE FLOWER BORDER

SHERMAN R. DUFFY

Midsummer Flowers that Defy Drought Chosen Chiefly from the Wealth of Our Native Prairies

THE world is full of weak intellects trying to do something they know they can't do. Out of sheer contrariness or persistence or stubborness, whatever you wish to call the quality of mind, they won't do what they know they can do well if they can help themselves. I fear I am one of them, a confession forced from me with the completion of the annual autumn garden pogrom, the garden paths being strewn with the corpses of those "wandering Jews" of the flower world, Perennial Sunflowers, Boltonias, weedy Perennial Asters, that seedy tramp the Mountain Sage (Salvia azurea), and others. These I know will grow and bloom generously, but I have scorned them in the past and kept on manfully trying to grow the gorgeous Phlox which invariably becomes a gaunt and leafless victim of red spider, Platycodons that dry up, Lilies that function perhaps once and never re-appear (with the exception of the faithful Tiger), Funkias, Japanese Anemones, Dahlias, and other prizes of late and mid summer.

Each year when the annual slaughter of these plants is complete, I have vowed never again to permit them to gain a foothold, then have relented and left one or two so that each succeeding year these nurseryman's delights—self-starters that require no hired help in the propagating department—again appear in numerous quantity. I am becoming reconciled to using them and making the most of them instead of battling to make things grow that just naturally won't thrive under the conditions in my garden. To be used in a garden of small proportions most of these plants need rigorous curbing, and there is just one way to handle such subjects as Boltonia and Sun-

"TAME" BLACK-EYED-SUSANS
"The most brilliant display of early July in the prairie garden comes from the Black-eyed-Susans, the best garden form being Rudbeckia Newmani or speciosa"

flower and that is to pull them up as soon as the bloom fades, leaving only enough for the next season's supply. Otherwise they will colonize all over the garden.

Much can be forgiven any plant here in the Middle West that can successfully withstand the sizzling dog days and bloom copiously regardless of periods of drought with which we seem reasonably sure to be afflicted at some time or other during the summer. Then city water supplies are cut off for gardening purposes and the midsummer garden is left to a survival of the fittest.

Knowing full well the likelihood of these periods of dessication in a garden such as mine where drought somes so easily—it consists of light sandy soil resting on a sandstone foundation and drained within an inch of its life at all times, so effectively that puddles after a cloudburst are only momentary—yet I have, for a number of years prosecuted a more or less fruitless campaign to grow the ungrowable under such conditions. After June, desolation reigns in a garden on the dry side unless ironclad plants are used that can resist drought and thrive and give their bloom. I am showing a glimmer of intelligence in cutting down the supply of plants whose growth was only a gamble and planting a long bed (75 x 5 ft.) of "sure fire," after June bloomers.

Prairie Brilliance versus Gray Gardens

STRANGELY enough, with a wealth of brilliant material for just such conditions, the midsummer garden seems to be something of a problem, and few gardens are seen really furbished with bloom. Yet our prairies, or such fragments of terra intacta as are left for us to study, chiefly along railroad rights of way, unfold a seasonal panorama of beauty, each succeeding week or month showing a characteristic bloom regardless of drought. Nature's summer color scheme for the prairie country seems to be Assyrian in its splendor, the composites coming in cohorts of purple and gold, gleaming like the ancient armies. Lavenders, purples, and magentas, with various tones of yellow and orange, and an occasional splash of scarlet guiltless of any harshness or crudity under the strong white light of our "high skies" of midsummer with whose brilliance they are wholly in tune.

The gray garden so highly favored by Miss Jekyll and by her American echoes has no part in nature's pictures at this season, and I believe it to be no more desirable in our gardens under the usual conditions. However, that is purely a matter of taste. The great difficulty I find is to prevent the entire garden from turning gray either from drought or dust. In a moist climate, where verdure maintains a continuous brilliant green during the entire summer, the gray garden, it seems to me, would be restful and beautiful, but I find the gray leaved plants only sadden a picture altogether too likely to be drooping and dejected.

However, to Miss Jekyll's gray garden plan I owe the acquaintance of one of the most picturesque and vigorous plants of the midsummer garden—but I use it in quite different composition. This is the Globethistle (Echinops ritro)—a deep-rooting, drought-resisting type of plant with exceptionally decorative foliage and handsome blue globes above it. It grows very readily from seed and the seed heads must be kept cut or it will be found coming up in droves. An accidental seedling of a Globethistle growing in a clump of the Purple Coneflower (Echinacea or Rudbeckia purpurea) discovered for me a most unusual and exquisite planting, both for foliage effect and color beauty of the combination.

I have alternated groups of the Globethistle and the Coneflower as the main feature of my "after June" border. For early July and late June I had an occasional clump of Chrysanthemum maximum which I consider of better decorative effect than the Shasta Daisy, being a much more vigorous grower. The white Daisies made a fine companion planting for the first bloom of the Globethistles and by the time the main crop of bloom was at hand the Chrysanthemum maximum clumps were ready to cut down.

Cool and Cloud-like Beauty of Boltonia and Spurge

AT THE back of this border I had planted a row of Boltonia asteroides at three-foot intervals, and a little in front a row of the Mountain Sage alternating with it. Not that I particularly admire the latter plant, but because it had spread and I thought by trying a lot of it some effect might be secured from the beautiful azure blue of the individual flowers which usually are ragged and unkempt in appearance as not enough of them open at once to give character. I had not contemplated

any effect in conjunction with the Boltonia, yet against the cloud-like background of the white daisies of this tall Asterwort, the blue flowers of the Sage were displayed for more beauty than they really possess. This Sage somehow reminds me of another member of the Mint family, one of Miss Jekyll's gray favorites which I discarded with other gray subjects, the educated Catnip, Nepeta Mussini, which needs a mass to show any character, as does the Sage. Our cats do not think any more of it than they do of common Catnip, and I've always considered them smart cats.

Again I am unorthodox, according to the Jekyll color school in believing that Gypsophila paniculata does not pay sufficient rent for the space it occupies—it is too gray and vague; and later I am not at all fascinated by the warm browns of its drying stems. However, a native plant of much the same airy effect and more lasting, both in the garden and for cutting, and which I think much more interesting is the Flowering Spurge (Euphorbia corollata), a common roadside wildling in certain localities. Its regular snowy, green-centered flowers on their airy stems always look clean and refreshing. Clumps of it among the Globethistles and Coneflowers help to conceal any bare stems near the ground. I noticed last summer that the Spurge was replacing the Gypsophila as a cut flower in florists' windows.

The Gaillardia and Other "After June" Gaieties

IN ORDER to add a livelier note and break the monotony, a clump of a prairie plant seldom seen in gardens and which I have always admired both for the beauty of its unusual foliage as well as for its golden spike of sessile sunflowers, was placed about half-way. This was Silphium laciniatum, the Compass-plant. The large, peculiarly cut leaves, given a chance to develop in the more kindly soil of a garden, are unusually effective without the blossom.

The most brilliant display of early July in the prairie garden comes from the Black-eyed-Susans in great patches and smaller clumps scattered here and there, enlivened by an occasional plant of the flaming orange-scarlet Butterfly-weed (Asclepias tuberosa). The wild plant is Rudbeckia hirta, but the best garden form is R. Newmani or speciosa, and a fine plant for a glowing mass of yellow and brown.

The most brilliant individual plant in my "after June" planting was a newcomer and a mysterious stranger until it was well in bud. This was Liatris scariosa, the finest form for the garden of our Blazing-star or Kansas Gay-feather. This cluster of rosy, purple spikes was undoubtedly rendered more showy and brilliant by being backgrounded by a bank of white Boltonia. This is a garden picture I can highly recommend for late August and early September.

It seems strange to me that so handsome and responsive a mid-summer bloomer as the Buddleia should not be more frequently grown. Although sold as a shrub, it is best treated as an herbaceous perennial, for it kills to the ground each year, but it is hardy with a liberal mulch and springs up from the roots, putting forth its lavender tassels from the tip of every branchlet until freezing weather. Planted with orange African Mari-

BOLTONIA IS A LUSTY LATE SUMMER STANDBY

This tall Asterwort with its abundant, daisy-like bloom is very effective in mass as a background plant; Mr. Duffy companions the specie asteroides with the azure blue of Mountain Sage (see opposite page) in his hardy border. It also lends itself well to naturalistic uses as here in Mrs. Chanler's Tuxedo, (N. Y.) garden

golds (one of the annuals that always succeed with me despite drought) the Buddleia, or Butterfly-bush as it is aptly named, gives a wonderful mass of bloom which attracts every butterfly in the neighborhood, particularly the black and red monarchs who hover in constant attendance.

A chief standby for a dry garden is the Gaillardia, so reliable that I always give it a big bed in order to be sure of flowers all summer no matter what happens. The Gaillardia delights in a warm, dry soil and from June until killing frost it is never out of bloom, its colors being particularly brilliant in the cool days of fall. Its foliage is very inferior and untidy looking, however, and to furbish the bed a little I have alternated clumps of Columbine with an occasional clump of that fine Meadowrue, Thalictrum dipterocarpum, whose delicate lavender spikes of bloom and foliage, rivalling the Maidenhair Fern, form a picture in themselves in June. Also an occasional clump of Iris pallida dalmatica among the Gaillardias around which they may cluster and sprawl.

The Columbines and Iris are out of bloom early and the flower stems should be cut down before the Gaillardias are in full flower. While we cannot import the wonderful, named Gaillardias, fine strains may be established by sowing liberal quantities of seed and selecting the best types. There will be a great variation in the size and shape of the flowers as well as the amount of red in the bloom. Only one cultural warning is necessary—do not transplant in the fall. It is very hardy and persistent in my light soil, but I am told that in cold, heavy soils it often winter-kills. In such situations drainage should be provided.

In addition to the plants already named there are the Goldenrods in numerous variety and the Heleniums, both the native yellow and the garden varieties, in red and orange, which are well worth growing in any garden.

By gradually eliminating the plants which I find will not thrive satisfactorily and supplanting them with the sturdier kinds I managed last summer to have plenty of color the entire season.

SOIL FACTS FOR READY REFERENCE

—Sandy soils should receive frequent small applications of manure rather than a heavy dose at any time.

—It is more costly to bring up fertility in the soil than it is to keep it up.

—The most practical and economical way to build up the productiveness of sandy soils, is to plow under green crops.

—If the soil pulverizes and retains its granular texture, it is in ideal condition for crops.

—Subsoiling is not generally profitable, but there are many soils that subsoiling would help reclaim.

—A chalk soil does not absorb the solar heat, and therefore is cold to the roots of plants.

A DAY-LILY WHICH LIKES BOTH SUN AND SHADE

H. C. DOWNER
Garden Superintendent at Vassar College

The Old-fashioned Funkia or Plantain-lily Makes Itself at Home in Many Places

EDITORS' NOTE: These Day-lilies offer an excellent example of the troubles of plant nomenclature and have been known at one time or another variously as Aletris, Hemerocallis, Hosta, Niobe, Funkia, to say nothing of the mistaken identities of individual species about which the less said here the better, perhaps. The two earlier names had to be abandoned because the plants proved to belong in neither genus. Hosta was given in 1812 and about the same time Niobe was proposed. There was some dispute about that name being available, as having been previously used elsewhere, and Funkia was given five years later, and has become popularized in gardens. However, the earlier name Hosta is now regarded as having been properly given when it was applied, and the subsequent names Funkia and Niobe have had to give way because of priority. Therefore Hosta is the accepted name of the popular garden Day-lily familiar as Funkia.

PROMINENT among good-natured plants which make themselves at home under quite varied conditions are the Plantain-lilies, erstwhile Day-lilies, sometimes referred to under the generic name of Hosta (as in Bailey's "Standard Cyclopedia of Horticulture") but more generally known as Funkia. As a matter of fact it is a genus which has been over-burdened with synonyms even as to the species as well and consequently the nomenclature is more or less confused though, fortunately, that does not detract from their value in the garden.

In locations where the roots can always find moisture the growth of the Plantain-lilies is most luxuriant and it matters not if the sun shines on them all day long. On the other hand, not many plants can equal them in putting up a good appearance in a dry and shaded situation, such as often prevails near a dwelling or under trees. The accompanying photograph shows the familiar Funkia subcordata grandiflora (properly Hosta plantaginea) thriving very well in a rather difficult situation beneath a large White Pine. At the time the picture was taken the plants had grown undisturbed for many years. They have since been taken up and divided, which has resulted in still more vigorous growth. The foliage effect is good all through the season and in August and September the fragrant white flowers make an attractive showing.

Funkia lancifolia (properly Hosta japonica) also thrives in dry shady places and is most free flowering, making a fine display when massed, with its lavender colored flowers carried well above the leaves. The variety alba-marginata gives a very pretty foliage effect with its long narrow leaves edged white. Of the variegated kinds the white margined form of the plant now called Hosta undulata, but long known in cultivation as Funkia lancifolia undulata medio-picta seems to be the most generally planted. Propagation is easily effected by division of the crowns in fall or spring. Seeds sown in coldframes in the fall usually germinate very well the next spring, but are slow growing. Variegated forms are not to be depended upon for coming true from seed. Funkia ovata (Hosta caerulea) also has bluish flowers and broad green leaves.

The strongest growing of all is Funkia (Hosta) Sieboldiana with large leaves of steely blue and lilac colored flowers. It needs a good, rich soil to attain its best development and is very well placed along the water-side.

Margaret DeM. Brown, Photo.

FUNKIAS GROWING UNDER WHITE PINES AT VASSAR COLLEGE, POUGHKEEPSIE, N. Y.

One of the good qualities of this old-fashioned Plaintain-lily (Hosta plantaginea) is its placid acceptance of difficult living conditions; the plants shown above having thriven for many years in the shadow of the Pines

PLANNING A PROGRAM FOR YOUR GARDEN CLUB

GARDENING has ceased to be merely the hobby of a few pleasantly minded souls and has become a unified, definitely constructive endeavor conducted by some thousands of rather earnest people. The day for taking even relaxations lightly has passed—we are too "rushed," too aware of life's relative values to spend serious effort on the negligible. What has been lost in flavor may have been gained in power and at any rate we have the comforting assurance that gardening is a steadily strengthening factor in the shaping of national thought and character—a sane, clear stream in the hurried, somewhat turgid flow of present-day living.

This transmuting of a primarily personal enjoyment into the larger enjoyment of a social movement finds unmistakable echo in the activities of the Garden Clubs, which reach out widely beyond community affairs into those of state and nation—as witness the present vigorous Anti-Billboard Campaign (See page 227, Dec., 1923, G. M., also page 363, Feb., 1924, page 46, Mar., 1924), recent and pending legislation on behalf of threatened native plants, and the many civic benefits inaugurated by National Garden Week.

Thus in planning the year's program all these newer interests must have their place together with such time-honored and yet somehow perennially stimulating topics as "Good Design in the Little Garden," "Roses for the Summer Garden," "Flower Arrangement," and so on—in essence, perhaps, ever the same but clothed with the lustre of fresh knowledge and fresh uses. After all, gardening is not a static art but an alluring mistress, many-sided and very much alive, at whose feet scientists and voyagers are continually laying newly discovered treasure.

Every well-rounded program will, then, take cognizance of the garden as a recreation for the individual and as a force in the creation of national character, though any such outline as here given can, of course, furnish only a bare framework on which to build according to the fancy or the purpose which animates each club. Such individual variations do, in fact, lift any plan out of the insipid slough of the purely general into the more sparkling realm of the particular and personal.

In choosing the topics for discussion listed below, an effort has been made to pick subjects that are generally interesting to gardeners everywhere. No specific months have been assigned as appropriate times, for the topic to be considered will vary with the varying horticultural conditions in the different sections. Nor are these suggestions meant to be final in any way but rather they are set down as tentative "leads" for new groups which are groping for some sort of systematic study. So many queries keep coming in to us from fledgling garden clubs all over the country and from clubs in the remoter places that this plan has been built with the hope that it may provide some logical answer.

So far as possible, bibliographs and references have been appended in the double hope of facilitating the work of members who undertake the preparation of papers and of inducing the habit of reading among gardeners. So many failures can be avoided, so much time saved even in this forever experimental art by finding out the facts first, profiting by your predecessor's mistakes, that at least a short bookshelf seems an indispensable adjunct of every Garden Club, fledgling or mature.

TOPICS FOR A TWELVE MONTHS' PROGRAM WITH BOOKS FOR REFERENCE

I. Essentials of Good Garden Design

Governed by the same laws that govern all the fine arts, i. e.: space divisions or composition; color groupings; line and mass.

If possible arrange for a talk by a competent landscape architect; visit actual gardens and use them as object lessons, showing what is good or bad in the design of each and why.

COME INTO THE GARDEN, Grace Tabor (*Macmillan*)
PLANNING YOUR GARDEN, W. S. Rogers (*Doubleday, Page & Co.*)
THE LITTLE GARDEN, Mrs. Francis King (*Atlantic Monthly Press*)
THE SPIRIT OF THE GARDEN, Martha Brooks Hutcheson (*Atlantic Monthly Press*)
LANDSCAPE ART PAST AND PRESENT, Harriet Hammond McCormick (*Scribner's*)
THE GARDEN MAGAZINE, "Making a Garden Plan for Yourself," Carl Stanton (Jan., 1922)

II and III. Different Types of Garden

1. THE FLOWER GARDEN
   (a) The Hardy Garden (Planting for a Succession of Perennial Bloom)
   (b) Garden of Annuals (Flowers for Cutting and for Quick Effect)

THE AMERICAN FLOWER GARDEN, Neltje Blanchan (*Doubleday, Page & Co.*)
THE ENGLISH FLOWER GARDEN, William Robinson (*Scribner's*)
THE GARDEN MONTH BY MONTH, Mabel Cabot Sedgwick (*Stokes*)
MY GARDEN, COLOUR IN MY GARDEN, Louise Beebe Wilder (*Doubleday, Page & Co.*)
THE GARDEN BLUEBOOK, Leicester B. Holland (*Doubleday, Page & Co.*)
CONTINUOUS BLOOM IN AMERICA, Louise Shelton (*Scribner's*)
A GARDEN BLUEBOOK OF ANNUALS AND BIENNIALS, Henry Stuart Ortloff (*Doubleday, Page & Co.*)
THE AMATEUR'S BOOK OF FLOWER-GROWING, Leonard Barron (*Doubleday, Page & Co.*)

2. ROCK AND WATER GARDENS

ADVENTURES IN MY GARDEN AND ROCK GARDEN," Louise Beebe Wilder (*Doubleday, Page & Co.*)
MAKING A ROCK GARDEN, H. S. Adams (*McBride*)
BOOK OF WATER GARDENING, Peter Bisset, (*De La Mare*)
THE GARDEN MAGAZINE, "Bringing Alpine Plants Into Our Garden," Henri Correvon, Clarence Lown and Louise Beebe Wilder (Feb., 1922); "A Most Easily Grown Three Dozen," Montague Free (Mar., 1924)
THE COMPLETE GARDEN, Albert D. Taylor (*Doubleday, Page & Co.*) ch. xv

3. FRUIT AND VEGETABLE GARDENS

HOME VEGETABLES AND SMALL FRUITS, Frances Duncan (*Scribner's*)
PRINCIPLES OF FRUIT GROWING, L. H. Bailey (*Macmillan*)
THE HOME FRUIT GROWER, M. G. Kains (*De La Mare*)
THE AMATEUR'S BOOK OF THE VEGETABLE GARDEN," I. D. Bennett revised by A. Kruhm (*Doubleday, Page & Co.*)
THE GARDEN MAGAZINE, "What, Why, and How Much Fruit to Plant," John L. Doan (Feb., 1922, and subsequent issues); "Planting Chart for a Family's Vegetables," Adolph Kruhm (Feb., 1922)

IV and V. The "Big Seven" of Flowerdom

DAFFODIL

DAFFODILS, Joseph Jacob (*Stokes*)
THE BOOK OF THE DAFFODIL, Rev. S. E. Bourne (*John Lane*)
THE GARDEN MAGAZINE, "Dallying with Daffodils," Agnes Fales Huntington (Oct., 1922); "The Golden Cup That Cheers in Spring," Wm. D. I. Arnold (Sept., 1921)

TULIP

TULIPS, Joseph Jacob (*Stokes*)
BULLETIN OF THE GARDEN CLUB OF AMERICA, "Tulips," Henry Gibson, (Sept., 1923)
THE GARDEN MAGAZINE, "Gems among the Tulips," A. F. Huntington; "Tulips for the Connoisseur" D. W. Hart (Oct., 1923)

IRIS

THE BOOK OF THE IRIS, R. Irwin Lynch (*John Lane*)
TALL BEARDED IRIS, Walter Stager (*Stager*)
BULLETINS OF THE AMERICAN IRIS SOCIETY

PEONY

THE BOOK OF THE PEONY, Mrs. Edward Harding (*Lippincott*)
PEONIES IN THE LITTLE GARDEN, Mrs. Edward Harding (*Atlantic Monthly Press*)
BULLETINS OF THE AMERICAN PEONY SOCIETY

ROSE

ROSES AND HOW TO GROW THEM, J. Horace McFarland (*Doubleday, Page & Co.*)
THE PRACTICAL BOOK OF OUTDOOR ROSE GROWING, Geo. C. Thomas, Jr. (*Lippincott*)
HOW TO GROW ROSES, Robert Pyle (*Conard & Jones*)
THE AMERICAN ROSE ANNUALS

DAHLIA

THE AMATEUR'S BOOK OF THE DAHLIA, Mrs. Charles H. Stout (*Doubleday, Page & Co.*)
THE GARDEN MAGAZINE, "Appraising Some Newer American Dahlias," T. G. Pappe (Feb., 1923)

CHRYSANTHEMUM

THE CHRYSANTHEMUM, Arthur Herrington (*Orange Judd*)
THE CHRYSANTHEMUM MANUAL, Elmer D. Smith (*Smith*)
THE GARDEN MAGAZINE, "Big Chrysanthemums and Little in Gardens East and West," Wenzel, McColm, Smith (Mar., 1923); "The Day of Small-flowered Chrysanthemums," Chas. H. Totty (April, 1923); "The Trail of the Chrysanthemum," Albert A. Hansen (Nov., 1922)

VI. Little Indoor Gardens

1. BULBS (Kinds and How to Force for Successional Bloom)

THE GARDEN MAGAZINE, "Household Flowers for the Holidays," Ellen D. Wangner, (Aug., 1922)

2. HOUSE PLANTS (Satisfactory Sorts and Their Care)

THE GARDEN MAGAZINE, "Now That the Porch Plants Are Indoors," Jane Leslie Kift (Nov., 1922); "Success with the Indoor Window Garden," Burke and Miller (Oct., 1922)

3. WINTER WINDOW BOXES (Materials and Time for Planting)

THE AMATEUR'S BOOK OF HOUSE PLANTS, Parker T. Barnes (*Doubleday, Page & Co.*)
MILADY'S HOUSE PLANTS, F. E. Palmer (*De La Mare*)
HOUSE PLANTS, THEIR CARE AND CULTURE, Hugh Findlay (*Appleton*)
THE COMPLETE GARDEN, Albert D. Taylor (*Doubleday, Page & Co.*) Ch. XXXV

VII. Wild Flowers and the Garden

1. THE WILD GARDEN AND CONSERVATION

TAMING THE WILDINGS, Herbert Durand (*Putnam*)
THE GARDEN MAGAZINE, "The Broader Gardening," Helena Rademacher-Pickenback (May, 1923)

2. WHAT SHALL WE DO ABOUT CHRISTMAS GREENS?

BULLETINS OF THE WILD FLOWER PRESERVATION SOCIETY
THE GARDEN MAGAZINE, "Long Life to Our Christmas Greens," Elizabeth G. Britton (Dec., 1923)

VIII. Trees and the Garden

1. TREES AND THEIR MEANING TO MAN

THE ROMANCE OF OUR TREES, E. H. Wilson (*Doubleday, Page & Co.*)
BOTANY, THE SCIENCE OF PLANT LIFE, Norman Taylor (*Harpers*)
THE CULTIVATED EVERGREENS, L. H. Bailey (*Macmillan*) Chapter I.
THE GARDEN MAGAZINE, "Green Symbols," Mark Daniels (Aug., 1921)

2. DOUBLE-PURPOSE TREES (Nut and Fruit Trees as Ornamentals)

NUT GROWING, Dr. Robt. T. Morris (*Macmillan*)
THE GARDEN MAGAZINE, "Concerning Trees That We Plant," Dr. Robt. T. Morris (Oct., 1922); "By All Means Plant Nut Trees," L. and M. Theiss (Oct., 1921); "Under His Own Vine and Fig Tree," L. E. Theiss (Jan., 1921)

IX. Flower Arrangement

PRINCIPLES OF FLOWER ARRANGEMENT, Edward A. White (*De La Mare*)
FLOWERS FOR CUTTING AND DECORATION, Richardson Wright (*Dutton*)
THE GARDEN MAGAZINE, "Flower Arrangement As a Fine Art," E. A. White (Aug., 1922); "Decorating Artistically with Flowers," E. A. White (Oct., 1922)
JAPANESE FLOWER ARRANGEMENT, Mary Averill (*Lane*)

X. Why Gardening is Good Citizenry

1. WHAT GARDENS MEAN IN THE LIFE OF A NATION

MAN'S SPIRITUAL CONTACT WITH THE LANDSCAPE, Stephen F. Hamlin (*Badger*)

2. NATIONAL GARDEN WEEK ACTIVITIES

THE GARDEN MAGAZINE for March, 1923, and every subsequent issue

3. FOSTERING THE JUNIOR GARDEN CLUBS

4. CHILDREN'S GARDENS AND THEIR CIVIC SIGNIFICANCE (School Gardens, Classes at the Botanic Gardens, Tree Planting Day etc.)

XI. Birds and the Garden (Planting to Attract the Birds)

HOW TO MAKE FRIENDS WITH BIRDS, Neil Morrow Ladd (*Doubleday, Page & Co.*)
WILD BIRD GUESTS, Ernest Harold Baynes (*Dutton*)
OUR WINTER BIRDS—HOW TO KNOW AND ATTRACT THEM, Frank M. Chapman (*Appleton*)
THE COMPLETE GARDEN, Albert Taylor (*Doubleday, Page & Co.*) Chap. XX.
AUDUBON SOCIETY BULLETINS
THE GARDEN MAGAZINE, "Planting Now for Birds the Year Through," (Oct., 1921)

XII. Flower Shows and What They Accomplish

When and How to Stage, Classifications, Judges, Rulings, etc.

THE BOOK OF THE FLOWER SHOW, R. Hooper Pearson (*Lane*)
THE AMATEUR'S BOOK OF THE DAHLIA, Mrs. Chas. H. Stout (*Doubleday, Page & Co.*) Chap. XII.
PAGE FROM A GARDEN NOTEBOOK, Mrs. Francis King (*Scribner's*)
BULLETIN OF THE GARDEN CLUB OF AMERICA (May, 1923)

SHIRLEY POPPIES FOR INDOOR USE

HANS J. KOEHLER

THE Shirley Poppy is hardly thought of as a cut flower, yet it can be so used under favorable conditions; for those who have never grown and cut it for this purpose there is an agreeable surprise in store. The cultural directions will be passed over except to say that the Poppies must be given fairly well enriched garden soil, watered occasionally, and—most important of all—not neglected in the thinning, so that at the last thinning they stand at least four inches apart, and preferably six.

The flowers are not easily carried far when cut and are most effective if gotten into water in the house within a few minutes after picking. Pick them early in the morning, using only such flowers as have opened freshly that morning. A vase of forty or so of well-grown blooms, cut with long stems and before the anthers have shed their pollen, make a display of tender, delicate, chaste beauty absolutely unparalleled; the finest Roses look brutal and sensuous beside them. The Poppies seem to gain in the surroundings of the house. I once placed about a hundred and twenty in the room in three or four vases, and then called in a few neighbors; their exclamations of delight rivalled those heard at a fireworks exhibition!

If the weather is not too hot and the Poppies are kept out of drafts, they will remain in good condition for forty-eight hours, and in really cool weather for seventy-two hours or longer. Shirley Poppies grown and handled as here described are very different from the puny, sorry looking, bedraggled specimens sometimes seen stuck into a bouquet of mixed flowers where their fragile loveliness is completely obliterated.

Garden of Mrs. A. L. Kramer at Westbury, L. I.

Ellen Shipman, Landscape Architect

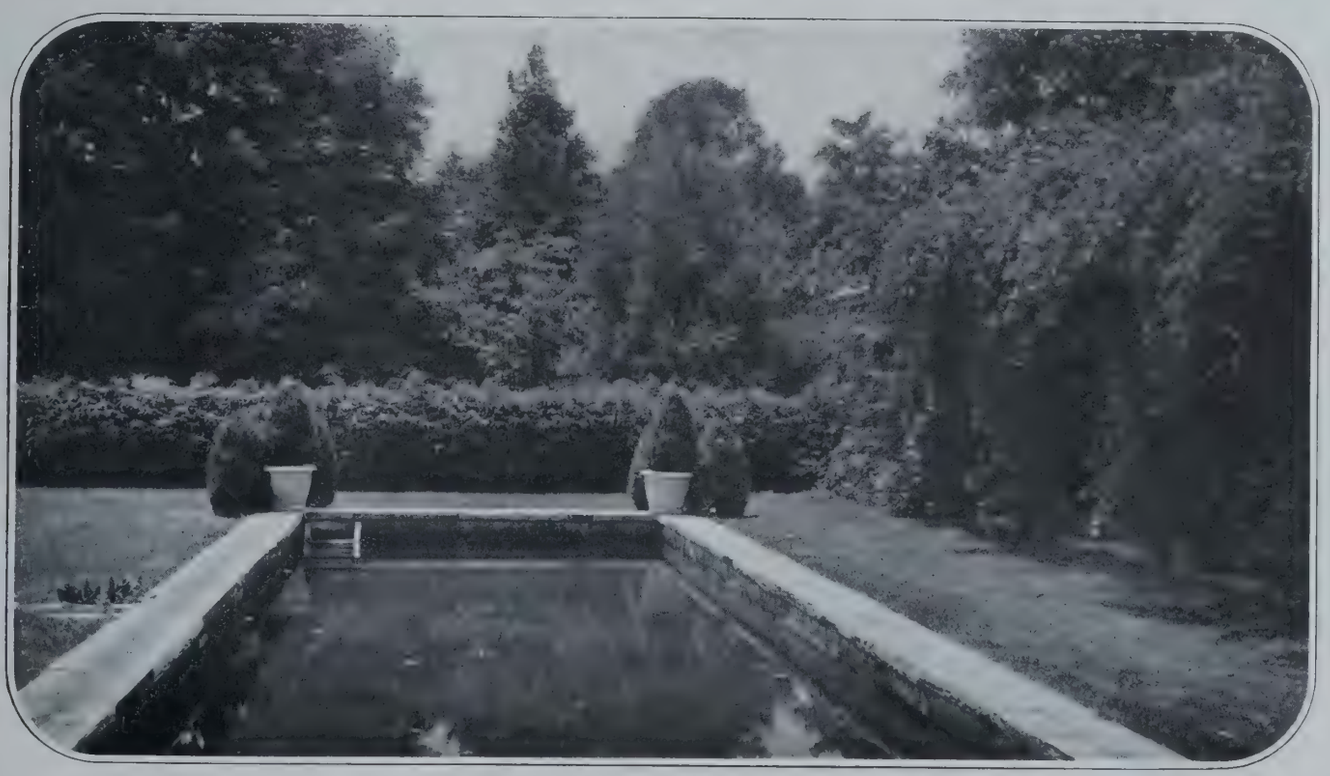
Photographs by Mattie Edwards Hewitt

"A SPELL LIES ON THE GARDEN. SUMMER SITS
WITH FINGER ON HER LIPS—"
Gertrude Huntington McGiffert

The walled garden is happily, if somewhat slowly, coming into its own in this country where, in the more thickly settled districts at least, we are beginning to crave its seclusion and to appreciate the opportunity it offers for much pleasant outdoor living. Petunias, Gladiolus, Hemerocallis, Salvia farinacea, Stokesia, Forget-me-nots all abloom

In Mrs. Kramer's garden may be found one of these alluring "little paths that lead to nowhere but on which I have sometimes found my soul," as Corinne Roosevelt Robinson delightfully puts it

The pool, appropriately set against a hedge of Cedar and flanked by tumbling masses of Wisteria, proves irresistible when the hot days come



HOW I FEED MY ROSES

REV. SPENCER S. SULLIGER, D. D.
Hon. Vice-President American Rose Society

A Systematic Scheme of Applying Fertilizers that Brings Big Blooms and Bright Foliage—Some Conclusions of a Student of Roses on the Pacific Coast that Hold Valuable Suggestion for Rosarians Everywhere

THE secret of economy and success in feeding the Rose is, of course (as in the case of any plant) to supply by fertilizing whatever it needs for healthy growth which the soil cannot naturally furnish.

Without being equipped to analyze soil, or accurately determine its lack, I was, like the vast majority of amateur Rose growers, taking long chances in attempting to give the Rose that which the soil could not give it. Years of experience gradually led to the conclusion that the mixing of a number of different fertilizers into a combination fertilizer—a sort of a shot-gun mixture—was neither economical nor accurate, so during the season of 1923 I weighed and measured the fertilizers put on my Rose beds, and never but once put two fertilizers on at the same time. Quantity, quality, and color of bloom, foliage, and growth of the bush were also carefully observed and recorded.

Roses, like people, need a change in diet, and the mere presence of a rose-food component in a fertilizer is not a certain guide. For instance, potash in a combined fertilizer failed to give as good results in some cases as potash in wood ashes—the Rose evidently needing not only potash, but potash as combined or found in hardwood ashes. This finds its analogy in the fact that a chemical component of a certain food does not fully determine its value in feeding people. For example, the same amount of iodine needed by the human system is best furnished by eating different foodstuffs that contain iodine, rather than by eating just one. And similarly, Roses do better by having a variety of diet, even if practically the same chemical elements are thus to be supplied.

UNDOUBTEDLY there are other good methods of using fertilizers, but the following simple plan has proved highly successful with me in gaining quantity, quality, and color of both bloom and foliage, as well as a healthy growth of canes. The fertilizers were not weighed each time, but containers were used that held just the required amount. My Roses are so arranged that there are only two rows in each bed, placed in this fashion:

x x x x x x x x x x

x x x x x x x x x x

With a stick a line was marked through the center from end to end; then a line from this center line to the edge of the bed, half way between the bushes, thus making a square around each. After a bit of practice I found myself able to determine the squares accurately enough merely by using the eye. Feeding then proceeded as follows:

March 10. Twelve ounces of sheep guano were scattered over each square surrounding each Rose and worked in with a hand digger, but not deep enough to disturb the feeding roots of the plant.

March 15. Six ounces (to each square) of very finely ground bonemeal was applied in the same manner as the guano.

March 19. Agricultural sulphur was scattered over the whole surface of each Rose bed and lightly *raked in.*

April 5. The first meal of nitrate of soda solution was given. This solution is made by dissolving four ounces of nitrate of soda crystals in two gallons of water. I use two buckets, so that one bucket of the solution is in the making while the other is being used. I have a small sprinkling can that holds just one quart. This amount is sprinkled over the square that surrounds each Rose, thus giving to each bush one-fourth ounce of the nitrate. This is a full dose, I know, but if it is put on just before or just after a good rain, or is followed by a good soaking from a whirl sprinkler, it is not too much. Though a little more trouble, I prefer to wet the ground by using the whirl sprinkler just before putting on the nitrate solution and again just after. Of course, care must be taken not to get the nitrate solution on the foliage.

April 16. Two ounces of superphosphate was scattered over the square around each Rose and *raked in.*

May 9. Gave the second dose of nitrate of soda solution just as on April 5, using the whirl sprinkler both before and after putting on.

June 18. Eight ounces of sheep guano, six ounces of finely ground bonemeal, and two ounces of superphosphate were scattered over each square and *very lightly dug in* with the hand digger. Believing fully in feeding the Rose with one fertilizer at a time rather than mixing all together, I broke this rule only on this one occasion, and deliberately, so as not to disturb the surface of the bed too frequently during the blooming period in June, and also to get the full benefit of the fertilizers for July, August, and later bloom.

July 10. Used the nitrate of soda solution (following same method of application and quantity as before) moistening the soil with the whirl sprinkler before and after putting it on. This ended the use of any fertilizer for 1923.

The result of this treatment was magnificent bloom and unusually large and beautiful green foliage until late in November. Aside from keeping the beds free of weeds, my Roses were neither cultivated, pruned, nor fertilized until early in March, 1924. Then they received their first pruning and fertilizing, to be followed in early April with the final close pruning.

THE dates given above are not arbitrary but must of necessity vary in different climates and are merely set down to show what actually was done during the spring and summer of 1923.

The Roses got their necessary supply of potash for 1923 by using hardwood ashes during the winter of 1922-23 up to the time of commencing the use of the fertilizers as told above.

A few of the Roses did not need and could not have safely assimilated the amount of fertilizer mentioned—such bushes received varying applications, but never as much as the regulation amount.

In 1924 I plan to use not a single fertilizer used in 1923, save the sheep guano. That will be used on only a part of the Roses, while some form of dairy fertilizer will be used on the others. For the nitrate, phosphate, and potash I will use other forms than those applied in 1923. Liquid fertilizer will be used exclusively during May. In ample time for the season of 1925, I plan to present through the pages of THE GARDEN MAGAZINE a full description of the method and fertilizers employed in 1924, with the results.

For Dahlia Lovers and Poets

THROUGH the generosity of Mrs. Charles H. Stout, THE GARDEN MAGAZINE *is privileged to announce the offer of a $50 cash prize to be awarded for a new and original poem on the Dahlia.*

Verse submitted in this competition must be of joyous mood in any lyric form, but not exceeding six stanzas in length. Competition closes October 1st, 1924, and all entries must reach THE GARDEN MAGAZINE *not later than that day.*

Contestants may submit any number of entries, with the name and address of the author plainly marked on each one, addressing them to the Dahlia Poem Contest, c/o Editors of THE GARDEN MAGAZINE, *Garden City, N. Y.*

A GLADIOLUS CHRONICLE

CLARISSA KELSEY MILLER

Successive Bloom which Brightens the Month of July and Selected Varieties for the Everyday Garden

LAST year my Gladiolus planting numbered about ten thousand corms of blooming size besides a great many bulblets, seedlings and seeds. And never has growth been sturdier or flowers more beautiful, the long drought and heat having been combated effectually with irrigation and frequent cultivation.

I believe in planting early, but a late spring delayed matters somewhat the past season so that the ground was not in suitable condition until the last week in April. By planting the Gladiolus early they bloom early and have gone when the Dahlias require my attention. Also, I do not make successive plantings; but by using corms of various sizes a long season of bloom is secured.

The ground is well prepared the previous fall and enriched with coarse bonemeal and stable fertilizer. In spring it is only necessary to have it spaded deeply, pulverized, and laid out in straight trenches five inches deep. The corms are laid in the bottom, two or three abreast for the larger sizes, and four for the smaller, with three inches of space between them. This space is ample unless giant flowers for exhibition are desired, for the Gladiolus has a comparatively restricted root system and my spikes, often five feet high with flowers five or six inches across, prove that there is no undue crowding.

The growing plants must be well cultivated and supplied frequently with water. Stakes four feet high are placed fifteen feet apart along each side of the rows and strong twine is used to keep the plants from filling the eighteen-inch spaces between rows. They should not be tied too tightly, and the last line may be about three feet above the ground allowing the spikes to bend outward somewhat, and preventing crowded, deformed flowers. When they are a foot high they are given a generous top-dressing of equal parts of weight of portland cement* and pulverized sheep manure.

THE first variety to bloom was WILLBRINK, pink, large and beautiful and especially desirable on account of its earliness. HALLEY followed five days later; with PRINCE OF WALES and 1910 ROSE sharing honors the following day. Both the latter are good.

DOROTHY MCKIBBON, a very good, ruffled pink opened July 13th, as did THE PEARL—not so good. On the 14th I found PROPHETESSE and THOTH, both splendid varieties and well worth growing. And on the 15th MARY FENNELL added a welcome touch of delicate lavender to the collection; the next day brought forth ANNA EBERIUS, YEOMAN, AMERICA, PANAMA, and CATTLEYA, with MARY PICKFORD, MRS. DR. NORTON, WHITE GIANT and HELEN FRANKLIN showing their first flowers on the 17th. The first named and the last four are especially good.

Only two new faces were added to the list next day; Burbank's PINNACLE—a very large, beautiful pink, and AMERICAN

*The use of portland cement has also been recommended by other Gladiolus growers and appears in the cultural directions in a catalog of one of California's specialists. Any advantage that may be derived must be due to the fact that a certain amount of lime in the cement becomes soluble upon addition of water. The Atlas Portland Cement Company states that "the stack dusts from the stacks connected with the rotary kilns. . . is being used in California as there is a small amount of potash in this dust . . . There is but a slight amount of potash in the finished portland cement and hardly a trace of phosphoric acid, and of course, no nitrogen."—EDITOR.

THREE GLADIOLUS OF DISTINCTION

Mrs. H. E. Bothin (left) an arresting ruffled beauty of pink with flaming scarlet throat; Pinnacle (center) a very large, beautiful pink; Kunderd's Glory (right), pleasing creamy apricot with light tint of pink and fine markings of red on lower petals, a pioneer among the ruffled types and the parent of many recent varieties

INDIAN, a good ruffled red. The 19th of July, however, disclosed seven newcomers, CORUNNA, ARGO, CHICAGO WHITE, CRYSTAL WHITE, BARON HULOT, NORA, and WAR; of this lot CORUNNA is the most striking.

The morning of the 20th brought with it a real delight in the form of EARLY SNOWFLAKE, a large white that reminded me of the Madonna Lilies in an adjoining bed; there were also ROSS VALLEY, SIRIUS, E. J. SHAYLOR and La CORDAIRE, all of good quality, the last named being one of the best reds I have seen.

An early morning visit on July 21st rewarded me with the discovery of NEGERFURST, a tall, dark red; and GOLDEN GATE, LILLIAN, VIOLET GLORY, JOE COLEMAN, JUNE DELIGHT, ARIZONA ROSE—all rather modest; and the much better PINK PERFECTION.

An unusually fine day and warm night brought out the largest number for one day, so far, on July 22nd, my tour of inspection revealing MRS. PENDLETON, always admired; MAGIC, a very attractive "blue"; JACK LONDON, bright and showy; GOLD DROP, a good Primulinus Hybrid; POLA NEGRI which I shall discard as the flowers have never been perfect; OLO, COSTA RICA (a fine lavender), and PINK BEAUTY, also to be discarded; MRS. WILLARD RICHARDSON, MYRTLE, VIOLET BEAUTY—all good, and a real novelty in MARTHA WASHINGTON, resembling a Pelargonium and fully as beautiful; LE MARECHAL FOCH and PRINCE OF INDIA, both worthy of a place in any extensive collection; WHITE WONDER, one of the very best whites; YELLOW GLORY; scarlet PRINCEPS; and that true aristocrat, PURPLE GLORY.

ROSE GLORY and GOLDEN BUTTERFLY were out on the 23rd; followed by four others equally beautiful, SUMMER BLOSSOM, BERTREX, YELLOW GEM, and SCARSDALE on July 24th.

Then came FERN KYLE, HIGHLAND LADDIE, REMEMBRANCE, ROMANCE, GRANDEUR, ORANGE GLORY, and FIRE KING, and not a poor one in the lot! BUTTERFLY, and SUMMER, appearing next day, rank considerably lower, but their shortcomings were overbalanced to some extent by stately spikes of ROSE ASH and MRS. WILLIAM KENT.

July 27th and 28th were red-letter days, bringing with them some of the gems of the entire collection: BYRON L. SMITH, a beautiful lavender with a cream throat (catalogues said white); PINK WONDER—a wonder indeed with flowers of a size and shade that place it in a class by itself; Diener's AMERICAN BEAUTY, aptly described by its name; ALBANIA, a magnificent, ruffled white; Cowee's SCARLET WONDER, a large red; SNOW GLORY, one of the extra good ruffled whites; AVIATRIX, a Primulinus Hybrid of softest pink and cream; and PRIDE OF GOSHEN, ALICE TIPLADY, HERADA, CAPELLA, GLORIOUS, and WHITE GLORY, each good but not in the same class with the varieties mentioned first.

GLADIOLUS SCARLET WONDER

A large red, flowering toward the end of July in Mrs. Miller's Connecticut garden and considered by her "one of the gems of the entire collection"

BUT one more day of recording was possible, for the number of newcomers was then so large that it was no longer practicable to make a list of the names. Besides, the data compiled as to comparative blooming dates of the different varieties, to which individual kinds of special merit could be added from time to time, was sufficient to help determine the best planting dates for blooms wanted at given times. July 29th therefore closed the list with DOROTHY WHEELER, a splendid pink; CONSPICUOUS, GOLDEN GLORY, MRS. VELTHUYS, SCHWABEN, GLORY OF HOLLAND, LOVELINESS, very good; CRIMSON GLOW, a very fine red; BEST VIOLET and FAIRLAND, both good; MRS. FRANCIS KING, EMPRESS OF INDIA, and IDA VAN; BETTY DARNELL, an extraordinary flower of palest yellow; PYTHIA, CAPTAIN A. C. BAKER, MRS. G. W. MOULTON, LARGE BUFF, ELIZABETH GERBERDING, ANTHONY B. KUNDERD and SULPHUR GLOW. The last two are among the best examples of flowers with intensely ruffled petals.

IN THE foregoing list short comment has been made on the varieties of special merit, although many of the others are worth growing. Some of the older kinds I shall discard, not because they are entirely without good points, but simply because the better and newer varieties have increased to the point where there is not room for all.

Naturally, among thousands of flowers, it is difficult, if not impossible to choose the best; and in making the selections I have solicited the views of numerous visitors to the garden.

The vote of the majority strongly endorsed my own impressions; so for the show bed or for the most distinctive planting my selection would surely include the following:

Pink Wonder, Purple Glory, Paramount, Albania, Mrs. H. E. Bothin, Marshal Foch (K), Louise, Golden Measure, La Cordaire, Richard Diener, Byron L. Smith, and Masterpiece.

Of the Primulinus Hybrids I would choose:

Thoth, Sweetheart, Alice Tiplady, Aviatrix, Kitty Gruellmans, Rose Luisante.

In making the above list due consideration was given to the different color sections; also extremely high priced novelties were omitted.

In the intermediate class, too numerous to treat at length, I would not omit:

Mrs. Wm. Kent, Betty Darnell, Martha Washington, Mrs. F. C. Peters, Crimson Glow, Romance, Elegance, Exquisite, White Delight, Anthony B. Kunderd, Costa Rica, and Rose Ash.

If price were the deciding factor, a collection of the following varieties would make a beautiful and well balanced showing, at a small outlay:

Le Marechal Foch, Evelyn Kirtland, Hereda, Flora, Early Snowflake, White Giant, War, Mrs. Dr. Norton, Anna Eberius, Jack London, Kunderd's Glory, Ross Valley.

GLADIOLUS TIME IN MISS RATHBONE'S GARDEN AT CHATHAM (N. Y.)
Where these daintiest members of their family, the Primulinus Hybrids, lift tall slender spikes of apricot, clear yellow, and sunset rose against a foil of greenery

"PRIM" GLADIOLUS, THE FLOWER OF ITS FAMILY

ALICE RATHBONE

Author of "Talking of Tulips" (June, 1923, G. M.), "Little Ladies of the Old School" (April, 1922, G. M.), "Christmas Roses" (Dec., 1922, G. M.) and other articles

An Appreciation of those Demure and Dainty Members of the Gladiolus Family, the Primulinus Hybrids, Which so Beautifully Adorn Dining and Tea Table During Midsummer Months

WHY should there be such strong desire to exploit the charms of the Gladiolus primulinus hybrid, in season and out, if not because it has been marked by perfection as its own?

So happy has been its evolution from a delicate African wildling to its present lovely self, without loss of original modest grace, with gain of marvelous coloring, that in only one way can it be considered unfortunate—its name. Imagine a gardener moved to exclaim, "What a perfectly lovely sight Gladiolus primulinus hybrids is this morning!" Imagine the sudden vanishing of enthusiasm that would follow such a rash venture in appreciation!

Out of this chilling situation grew the need of easier approach to this charming flower than its stand-offish name afforded. So the diminutive "Prim" was chosen as suggesting something of its sweet demureness under the hood it wears so coyly, while retaining a part of its own scientific middle name.

Any other attempt at change, however, particularly in regard to size, wherein the greatest danger of improvement lies perhaps, would seem regrettable; these so-called Prims being, just as they are so well adapted in every way, to their chief end in life—that of serving beautifully for house decoration. Their orchid-like flowers set along graceful stalks, in creamy whites; pale and deep yellow; flesh pinks; apricot tints and cool, soft reds, (harmonious all, and quiet without harshness throughout their entire range) make of our little Prims a treasure-trove indeed, for the vases.

What could be prettier for the afternoon tea table, arranged simply with their own leaves, or with Gypsophila sprays—bettered perchance by choice of Sea-lavender with the touch of blue over its mistiness? Queen-Anne's-Lace, too, is good with Prims whether the wild white or the tame blue be used.

A preference for flower-holders of glass is rather noticeable on the part of Prims, quite justified, to be sure, by their delicate beauty which would naturally adorn the rarest Tiffany or Venetian glasses. Would that such appropriate setting for the loveliness of these flowers were more easily provided!

With good luck in attendance, however, pleasing substitutes may, once in a while, be acquired by patient practice of "the fine art of picking up." On occasion a find may offer itself all of a sudden, even as a result of a hold-up in broad daylight on a side street in a strange city, where a crowded little everything shop had spilled itself over upon the pavement and a prim-colored, tumbler-shaped glass was one of the spills.

'LITTLE LADIES OF OUR DELIGHT"

Evolved from the African wildling, Gladiolus primulinus,—so delightfully described by Mr. E. H. Wilson (G. M. July, 1923, page 330) as "a child of the mists, whose home on the banks of the Zambesi River is constantly bathed in the spray from the wonderful Victoria Falls"—these modern hybrids are well adapted in every way for house decoration. Arrangement by the author

As a glance of the eye met the gleam of intermingling shades of rose and amber, the wintry aspect of a January day changed to a mid-summer vision, although the Prims with which imagination filled the glass were, at the moment, still in the corm stage, entombed like so many mummies, within their paper bags, in the home cellar. In due time, however, Prims and their glass affinity met in happy companionship and mutual becomingness. And they lent themselves gracefully to the thrifty use of Gladiolus gleanings—those few flowers still fresh at the tips of spikes that have so nearly spent their bloom, as to be no longer quite sightly in the garden.

The short-stemmed gleanings (all of accordant hues, of course, being Prims), rather closely grouped, with their green sword-like leaves rising above them and held by their own colorful glass, centered a small dining table most acceptably, during the summer Prim time.

"Midway-in-summer" Prim pleasure is at its height. Then is it happiness enough to step along the path that makes its pleasant way among them, conscious of the quiet gleams of wondrous color on either hand touched with that strangely luminous quality with which Prims are magically endowed—a showing through, it seems of some "inner light" such as shone upon the peaceful face of an old-time Quakeress. Radiance of spirit belongs evidently, quite regardless of apparel, both to the Quakeress in her sober gray, and to the gayly garbed Prims whose dresses are even edged, sometimes, with dainty ruffles of charming Kunderd style, without impairing in the least the dignified sweetness of their nature.

Prims are, indeed, so closely akin in general characteristics to Alice Meynell's "Shepherdess," being all so "circumspect and right," that one wanders among them as in a grown-up's "Garden of Verse"— where each little Prim, its beauty enhanced by the light reflected from within, becomes "The Lady of Our Delight"—in flower form.

THE GAMBLERS

ISN'T the weather like a game of whist,
Played by the seasons? Often when we note
An overplus of snowstorms, for example,
We can't believe but that the pack's defective.
But no; there prove thirteen to every suit.
The annual precipitation evens;
The equinoxes march, the harvests ripen,
Never twice shuffled to the selfsame hands,
Yet all compounded of the selfsame cards.
Then the great weathers of the year, the honors,
The memorable droughts and thunderstorms,
King blizzards, and the queens of Indian summer,
Fruits, and full moons—these honors of the year—
If in one hand there are too few of them,
The next will be all plumed with brilliant weathers,
A full bouquet!
The hands composed their tricks
On the broad green baize table of the world,
One laying down his April ace, and fearing
Some little trump of a late frost will take it;
One venturing his princely winter wind
Late into spring, a reckless singleton;
And one with dubious thumb and finger laying
A single sunny morning on the board,
To see who holds the king or ace of that;
What blue and green, or blue and golden day,
Apotheosis of a golden month,
Such as the first swift players of the world
Tossed on the table when the game began.

SARAH N. CLEGHORN

RICH PLANTING EFFECTS "WHILE YOU WAIT"

ERNEST F. COE
Landscape Architect

Vines that Bear Transplanting When Full-grown and Give Quick Results—Intensive Planting and Subsequent Pruning to Preserve the Garden Picture

SOME ninety days prior to the taking of the accompanying pictures, or, to be explicit, May 10th, 1922, a number of changes calling for a new doorway leading from the studio to the garage and gardens was near enough to completion so that plantings were in order. The pleasing results obtained were so immediate that some description of the materials and how they were used may be instructive to others who are seeking quick effects.

First of all, it is necessary to select sufficiently large vines at the start to reach to the top of the overhead framework rather than wait for smaller plants to grow. Fortunately, a number of the hardy woody vines do not object to being transplanted in these large sizes. It is better, however, to take a little extra care in their digging so as to get as much root as possible; also the transplanted vine must be somewhat trimmed down and the branches thinned out enough at the time of transplanting to reduce the strain when the new growth starts.

Among the desirable vines available for transplanting in large sizes are: Actinidia, Akebia, Ampelopsis, Dutchmanspipe (Aristolochia), Trumpet-creeper (Bignonia), Bitter-sweet (Cledastris), Euonymous radicans, Grape, Honeysuckle, Climbing Hydrangea, English Ivy, and Wisteria.

In this instance we had available several large, fine Grape vines with expressive old trunks of the Concord variety, which

SIX MONTHS AFTER PLANTING

The entrance to Mr. Coe's studio with Grapes, Ampelopsis, Pitch Pine, and two rare old Japanese dwarf evergreens (see accompanying text) to add a last touch of picturesqueness

gave us some splendid effects informally twined about the pillars. In digging we secured so small a proportion of root that we feared for good results, but were agreeably surprised by their ability to respond, producing ample foliage and seemingly little the worse for their transplanting, other than a somewhat curtailed growth. It may be good news to many to learn that Grape vines, seemingly no matter how old or long established, can be moved successfully if a little extra care is exercised. My own experience indicates that it is better to do the transplanting in the early spring in locations where severe winters obtain, rather than in the fall. For many garden effects, both ornamental as well as useful, and in many instances combining both, Grape vines are well worth considering.

Another vine used on this particular arbor planting is Ampelopsis arborea, a very vigorous growing climber with pleasing foliage and producing in the fall clusters of cobalt blue berries liberally massed. Two extra large plants of English Ivy, which had previously done duty in a living room, helped by lending maturity to this planting, adding a pleasing contrast with their firm, rich foliage to some of the other effects of a more lacy character. Happily, we had two rather leggy plants of the native Pitch Pine which could be spared for replanting, and when these were set close together, and the tops fanned out somewhat, they added much by their picture value. A search about the garden developed also the presence of three flowering Dogwoods which had been growing a number of years along the edge of a thicket and had long ago lost any suggestion of what is usually termed "specimen" development. When these three were grouped together, the amount of picture value they developed was almost startling, bringing one consciously near the Japanese conception of the importance of line in garden composition. Part of my collection of rare Japanese dwarf plants was also pressed in service with very happy effect, as will be seen in the accompanying photograph which shows a fine old Juniper (Juniperus procumbens); at center and an old white Azalea (R. ledifolium) at right.

The treatment throughout is quite informal—purposely so—to modify what might otherwise have appeared the too severe outlines of concrete columns and pergola overhead.

A rocky effect created by using boulders bordering the paths and steps gives opportunity for the planting of various Ferns, Sedums, and other rockery plants. These plantings in turn help materially in adding a quick expression of maturity to the general picture. Of course, where rapid and luxuriant growth is expected, the soil must be not only very well enriched, but also well drained, the latter being a most important feature.

Where materials are employed as freely as in this instance, radical trimming, especially after the first season, is imperative; otherwise the growth will become too assertive and much of picture value will be lost. He who gardens intensively, using green things liberally, has ever before him the certainty that knife and pruning shears must be used fearlessly to keep the proportions and disposition of foliage within definite bounds.

With a well conceived idea of what really constitutes the gardener's part in creating beauty out-of-doors, and with the love of nature as a guide, the wonderful possibilities the garden offers for personal expression are unlimited, and it is not surprising that so many people with abundant initiative and appreciation of beauty find the garden ever luring them to higher triumphs.

A FAMILY OF FLOWERING PLANTS THAT REALLY LOVE THE SHADE

LOUISE BEEBE WILDER

Author of "Adventures In My Garden and Rock Garden," "Colour In My Garden," etc.

THE plaint is, frequently, that so few things grow well in the shade; and shaded borders and gardens where there are many trees generally bear witness to this theory by being poorly furnished and rather forlorn. The majority of American gardens are new, and therefore often without established trees, and even when choice of the garden site is possible the sunny situation is nearly always chosen in preference to that which is shaded; so that thus far our interest and investigation have been chiefly concerned with sun-loving plants. Now, however, that we are beginning to appreciate the pleasure to be found in rock gardening and in growing plants "naturally," the value of the shady situation is becoming manifest, for we realize that there are entire families of delightful plants whose health and happiness is dependent upon being protected from the sun, and many more that are entirely tolerant of a considerable amount of shade.

Among plants fitted to grow in shade none are more desirable and useful than the various members of the Corydalis family, many of them accepting shade or sun with equal content and having the added virtue of prospering where the soil is very dry. Beautiful feathery, or fern-like foliage, light yellow-green or gray in tone, is the most striking feature of these plants, though the blossoms of all the kinds are very pretty and usually continue over a long period. All are easily raised from seed, are easily maintained or maintain themselves by self-sowing, are hardy in the vicinity of New York, and fill many uses in either the shady or the sunny garden. They belong to the Poppyworts, and are closely related to the Dicentras, of which family the old-fashioned Bleeding-heart is so important a member.

Corydalis aurea is a little annual found in thin woodland from Maine southward to Pennsylvania and west to Wisconsin and Nebraska. Its pale green leaves are delicately cut and divided, and its bright yellow flowers are fully an inch long and continue to develop throughout the summer. I cannot learn that seed of C. aurea is to be had in this country, but as it is not at all rare in many localities it is to be hoped that it will soon be available through some source. It is extremely pretty and, once established, seeds freely.

C. bulbosa, the Holewort, is chiefly valuable because of its very early flowering. The first mild days in April start its gray-green buds pushing through the soil, and before the first Daffodil has expanded it is shaking out its little lavender blossoms above the grayish foliage. Its height is about eight inches and though it is not at all showy, it is very graceful and charming grown among the earlier-flowering Daffodils in the rock garden or along the edges of shaded borders. It blooms for full three weeks and then dies down entirely, not to reappear until the following spring. A native of the warmer parts of Europe, its hardiness

THIS YELLOW FUMITORY IS PERFECTLY AT HOME IN THE ROCK GARDEN

"Among plants fitted to grow in shade none are more desirable and useful than the various members of the Corydalis family, many of them accepting shade or sun with equal content and having the added virtue of prospering where the soil is very dry"

may not, perhaps, be counted upon with certainty, but, as it came through the unusually severe winter of 1919–1920 with little loss, it is not to be considered tender.

C. cheilanthifolia, a Chinese species, is one of the finest plants to grow among rocks or in any partially shaded position. It is particularly attractive used as an edging for shaded borders, for the tufts of beautiful dark fern-like leaves, eight or ten inches long, maintain their crisp freshness all the season and the stiff spikes of bright yellow blossoms, sent up in early April, are in nice contrast with early Violas, Scillas, Bloodroot and other plants of their day. With me this plant has sown itself freely, taking up its residence impartially in sun or shade, but the foliage is always much more luxuriant in the shade. It is too large a plant for a small rock garden, but it grows well in the crevices of shaded dry walls and is hardy anywhere save in heavy damp soil.

C. glauca, the Pale Corydal, a gay little native annual, deserves to be better known. Its tufts of gray leafage grace any situation, and its pretty pink and yellow sack-like blossoms, that continue to develop all summer, add greatly to its charm. Once established, it will keep itself going by self-sowing, and while it does this with a good deal of freedom, the little plants are so easily eradicated that they do not constitute a danger even in exclusive circles. It quickly naturalizes itself on shaded slopes or among natural out-croppings of rock, where it is particularly attractive and at home.

C. lutea, the Golden Fumitory, I first saw veiling with its masses of pale foliage and dainty yellow flowers an old wall at Mr. William Robinson's place in England. Acquaintance with it in my own garden has since proved it one of the most useful and charming of small plants for many situations. It is too intrusive and persistent for choice neighborhoods of the rock garden, but for growing in the joints of stone steps, for rambling about the crevices of dry-built walls, for softening the outlines of protruding rocks, or for veiling the edges of half-shaded borders, there is nothing more entirely delightful. Its height varies from six inches to a foot, its foliage is delicate and luxuriant, and its cheerful spurred flowers are in evidence from early May until hard frost puts an end to their activity. On account of the extreme fragility of the tuberous root, transplanting is difficult, but seed germinates readily and is best sown where the plants are to remain. When settled, this bright little plant will take upon itself the beautifying of all sorts of unlikely places, striking up many happy companionships and getting itself very generally admired and desired. It grows equally well in sun or in shade and in any sort of soil, but is hardier and more persistent where the soil is dry and light, even being able to support life handsomely in the mortar of old walls where there is practically no soil at all. The creamy variety, C. lutea alba, is rather rare, but seed is sometimes to be come by, and it is very lovely.

C. nobilis, a Siberian species, is a remarkably handsome and distinct plant with leafy stems eighteen inches tall and many heads of warm yellow blossoms with black tips. It flowers about the middle of May and then dies down entirely as does its cousin the Bleeding-heart. Here it grows in a sheltered, partially shaded border in light rather rich soil and never fails to attract considerable attention during its blossoming period. It does not seed itself at all, nor is its increase rapid, but with conservative leisureliness it becomes vearlv handsomer and more remarkable.

C. ochroleuca is similar to, but even prettier than the Golden Fumitory. The foliage is more delicate and has a distinct gray tone and the flowers are cream-white tipped with yellow. It is useful in the same way as C. lutea but, being less pervasive, is safely admitted to the rock garden where it creates a very lovely effect issuing from the crevices between large stones.

C. Scouleri is a tuberous-rooted species growing in northern California. It is offered in European catalogues and would doubtless be an addition to American collections could we procure it. The flowers are said to be purple.

C. thalictrifolia. This lovely Chinese species has not proved hardy with me in the vicinity of New York. It is one of the most distinct and interesting of the family, however, and would be a real acquisition in gardens farther south. The growth is tufted and about one foot high, and in the autumn the foliage assumes a pleasant reddish tone. The yellow flowers appear from May until October.

Stepping Stones o

EVERY standby was once a novelty! In fact, probably not a single present-day garden variety was in existence a hundred years ago—this is true not only of flowers but of fruits and vegetables as well. How many will stand the test of time is an interesting speculation—of the 7000 Dahlias today listed, or the 12000 Roses, which will hold for themselves a place in the gardens of a century hence? Novelties are veritably the stepping-stones of progress and though many may prove disappointing,—

GIANT DOUBLE FRINGED PETUNIA in pastel shades and innumerable brilliant markings; flowers continuously the year through in mild climates (Diener)

ALIDA LOVE CLIMBING R flowers bright pink shaded phur at base, large and borr long stems; st growing, bloo freely over ar tended period very hardy, Climber fitly panions the p lar Dr. Van (Lovett)

New GIANT SHIRLEY FOXGLOVE raised by the late Rev. W. Wilks, originator of the familiar Shirley Poppy. Flowers very large ranging from white to deep rose with spottings of crimson, maroon, or chocolate (Dreer)

DAHLIA-FLOWERED GIANT DOUBLE ZINNIA in a wide range of colors and quite apart from the usual giant types because of its very distinctive petal formation (Henderson)

Garden Progress

—some at least will so meet expectations as to make failures negligible; and in any case there comes the satisfaction of personal, up-to-date knowledge and experience

he new SWEET-PEA
'RESIDENT HARDING,
n arresting peach-red or
almon-cer se suffused
range with attractively
aved standard and wings;
he only variety of American
rigin that has ever received
n Award of Merit from the
nglish Sweet-Pea Society
(Burpee)

Now making its début is this tall ruffled GLADIOLUS CHALICE FLOWER, a light creamy blush white and of very graceful habit (Kunderd)

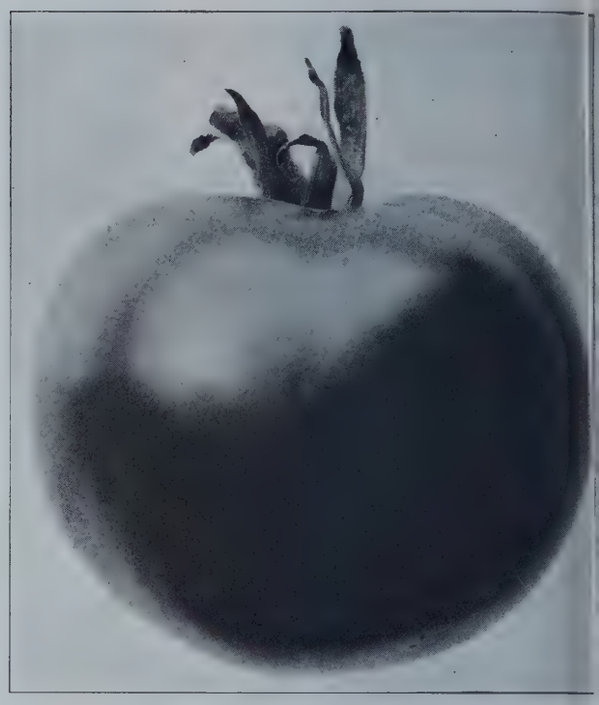
A sensation for the hardy border is this brand new SEMI-DOUBLE COREOPSIS (Coreopsis grandiflora semi-pleno) with bright yellow blooms abundantly given from June till frost (Dreer)

CANNA MRS. PIERRE S. DU PONT, a vivid watermelon pink, very large individual flowers with a wavy edge new to Cannas, withstands hot summer suns, originated by Mr. Antoine Wintzer (Conard & Jones)

Stepping Stones o

Its graceful habit makes the ROCKY MOUNTAIN GARLAND-FLOWER (Clarkia elegans) especially desirable for indoor decoration. Many new colors from pure white through various shades of rose, orange, and carmine to rich ruby-purple are offered (Henderson)

INDIAN SUMMER SNAPDRAGON, a new Giant strain with velvety spikes that bids fair to rival the Gladiolus. Flowers of a particularly lovely coppery hue (Schling)



TOMATO ROSY MORN, a productive early variety. Bright rosy pink fruits of medium-size which make it especially desirable for the home garden (Livingston)

MIDGET SWEET CORN, grows less than 3 feet tall and bears five diminutive ears to a single stalk; ears only 3 to 4 inches long, white, meaty, and sweet (Stumpp & Walter)

The ROCHESTER PEACH, an early yellow freestone ripening about the middle of August, a recent marked improvement on the well-known Early Crawford. The little tree shown at right was photographed in May just a year after planting and is carrying 24 fruits (Glen Bros.)

Garden Progress *(Cont.)*

GLADIOLUS KALAMAZOO, a recent introduction desirable for its rather rare shade of purple violet, lines of creamy white running through to edge of petals, throat also cream white (Vaughan)

A greenhouse novelty for 1924 is ROSE SENSATION (HT), a more than ordinarily free-blooming red of great intensity; long pointed bud; the opened flower holds its color to the last (Totty)

The arrival of VIOLA JERSEY GEM will delight the many owners of rock gardens by its penchant for sunny places, its dwarf habit, continuity of bloom, unquestioned hardiness, and pure violet daintily fluted flowers (Totty)

DELICIOUS is a welcome introduction to this season's garden, as a white Corn with the fine substance and flavor of Golden Bantam (Burpee)

AMONG OUR GARDEN NEIGHBORS

EVERY GARDEN MEANS A HOME

REVIVING OUR OLDEST BOTANIC GARDEN

TUCKED away comfortably in New England and under the shadows of one of our greatest institutions of learning is the oldest existing botanical garden of America. Long ago it served great purposes and is one of the oldest scientific establishments of Harvard University. Here Asa Gray worked, for instance. To-day this seven-acre garden (very appropriately located on Linnaean Street, Cambridge, Mass.) and still arranged about as it was a hundred years ago is reawakening into an activity that will touch a sympathetic chord among gardeners.

This most northern of botanic gardens is peculiarly favorably situated for testing hardiness and testing problems of acclimatization. It is proposed to make the Harvard Botanic supplement the work of the Arnold Arboretum, by rendering in its chosen field a service similar to that of the Arboretum with its great collection of hardy woody plants.

No botanical garden or other institution has yet given serious attention to the multitude of hardy herbaceous plants (which form such an important element in every garden, great or insignificant), and the Harvard Botanic Garden now proposes to undertake work in this direction and to establish type collections of herbaceous garden plants and to serve as a distributing center for new and lesser known forms when they have special garden merit.

The perennials now growing in this garden are arranged by families, for purpose of study, in the order of Engler and Prantl in curving beds around a central pool; the annuals of the families being planted in the two inner beds, thus keeping members of one family together. In a wooded section near-by is an area for the wild flowers of North America arranged by geography rather than by family. Yet another corner will be devoted to parents of hybrids of our common garden Roses. The Lily family, Ferns, and hardy Orchids all find appropriate settings.

There is a range of greenhouses to supplement the outdoor work of the garden and an unheated portion has indoor rock gardens which afford many points of interest at all seasons of the year, while outdoors is another rock garden where the abilities of these Alpine plants to withstand the northern winter is being tested.

In addition to the work of testing new herbaceous plants for hardiness and suitability for American gardens there is opportunity for breeding and selective work in making new forms and hybrids of plants already in cultivation. And no little service will be rendered all horticultural interests in checking up and straightening out confusion of names in species and garden varieties already generally grown. There is indeed much to be done here, and to further this end the Director invites assistance —seeds or small plants of useful or flowering herbs will gladly be accepted by the garden, and exchanges in kind will be made.

The garden will also offer a limited opportunity for study and work in training for practical horticulture under conditions of the northern United States for which there is little present chance anywhere in the country. The new activity of the new botanic garden will be in association with the other departments of study in Harvard University and in the associated schools of the region.

All this is splendid news and will bring the work of the garden into definite contact with garden lovers all over the country.

The recently appointed director, Mr. Stephen F. Hamblin, is favorably known to the readers of THE GARDEN MAGAZINE through his many contributions to our pages, but his initial steps are taken under the somewhat restricting handicap of the small endowment under which the garden works. The increased cost of labor and materials, with an endowment the same as it was ten years ago, has already necessitated a reduction of the working force to one half; which means that less than half as much really progressive work is being done and it is hoped that voluntary gifts to increase the endowment (which should be at least doubled) may be made through various sources and among those who will derive direct benefit from the results of the widening work now being put into effect. Any reader interested in the suggestions made for the benefit of the collections, financial or otherwise, or about the possibilities of special training is invited to correspond with the Director.

A MONUMENT TO LEMOINE

THE name Victor Lemoine suffices to recall to any gardener's mind the multitude of achievements in hybridization and plant improvements that stand to the record of this greatest of all plant breeders, measured by actual achievement in lasting additions to our gardens. It would take several pages of this magazine to merely enumerate the vast throng of worthwhile plants of garden and greenhouse which stand to the credit of that indefatigable worker at Nancy, France.

He it was who gave us the modern Lilac, the first Double Begonias and the universally grown Gloire de Lorraine, which things alone are sufficient to achieve his place for all times in modern history, to say nothing of the many improvements of the Lilac after his first start and of the more recent hybrids in Philadelphus, Deutzias, Weigelas, Hydrangeas; and what gaps there would be if Lemoine's Peonies and Gladiolus and Iris had not been given us!

He gave us the first Double Geraniums more than half a century ago and the catalogues that came from that little corner of France are milestones of progress in plant improvement, and the work is still being carried on by his son Emil.

Victor Lemoine died Dec. 11th, 1911, in his 89th year, revered by all who ever knew him and with the homage of thousands who knew him only by his works. Victor Lemoine was a true horticulturist whose glory belongs not alone to France but to the world, a creator as deserving of honor as any great painter, sculptor, or poet.

It is fitting, therefore, that the Central Horticultural Society of his home town should at this time be organizing for the celebration of his centenary (he was born Oct. 21st, 1823), and is

inviting subscriptions to erect to his memory a monument in one of the public parks of the city of Nancy. Appropriately, the treasurer of this fund is an amateur gardener, a member of the town council, Mr. Charles Marchal, to whom subscriptions may be sent at 60, rue Pasteur, Nancy, Meurthe-et-Moselle, France. Is it too much to hope that American participation will be generous?

A TRAVEL COURSE in landscape architecture and garden design has been organized by the Institute of International Education. An opportunity will thus be afforded to study the gardens and villas of Europe under the leadership of a qualified instructor, Prof. Edward Lawson of Cornell University.

The course of instruction will begin during the voyage across the Atlantic in the form of daily lectures on the history of landscape design, to be followed-up by field lectures during the two months of visiting the gardens of Italy, France, and England. This course is part of a series of five overlapping courses dealing with painting, sculpture, architecture, and other applied arts.

THE big Spring Flower Shows of New York and Cleveland, opening March 17th and March 29th respectively, take place after this number of THE GARDEN MAGAZINE goes to press. Comment upon these events is therefore to be looked for in the May number.

THE OPEN COLUMN

Readers' Interchange of Experience and Comment

Of Pinks and Some Spring-flowering Bulbs that are Scarce

To the Editors of THE GARDEN MAGAZINE:

MR. A. ZIMMERLI'S communication to the January GARDEN MAGAZINE has reminded me that I have not yet written an account of results from some former communications of my own. It would seem from the letters which I have received privately and some that have been published in the magazine that these subjects were of general interest to the readers of G. M.

About two years ago I wrote to the Open Column about the "hardy old-fashioned Clove Pink" which I had been trying for ten years to discover. I had written to all the oldest and most reliable seedsmen—and the only result had been that the dealer with whom I have dealt since I first had a garden very courteously replied that the plant in question had now entirely "disappeared from commerce"; and that it was difficult to propagate as he remembered it. I also wrote to one of the foremost English seedsmen with no better result. This Pink, perhaps more than any other of the old-fashioned plants, has been desired and sought for years—not so much in the last few years perhaps because of new introductions. But it seemed to me that the matter was of sufficient general interest for publication. I hoped that some GARDEN MAGAZINE reader who possessed an old garden might have some record, or recollection of the proper botanical name.

To my great surprise and delight I received a letter from a Garden Neighbor a few days after the magazine was published saying that she possessed, and was sending me, the real hardy, old-fashioned Clove Pink in both pink and white. Other letters came from all over the country, and my garden is now much richer for several specimens for which I am profoundly grateful to the G. M. and its readers.

I also received much interesting information regarding the species which seems to me of general interest. To begin with, the name of the species does not appear to be known to any of my correspondents. Secondly, both the pink and white varieties are well known in many gardens, but the red which I remembered in old gardens is less well known. So far I have only recently heard of its reappearance. Thirdly, in the interest of better gardens it should be said that this often mentioned "old-fashioned Clove Pink" is *not* Dianthus plumarius—either double or single. Dianthus plumarius is certainly an old-fashioned Pink, but it has not disappeared from commerce and it is well known. It is not difficult to propagate as it grows from seed as easily as any annual. It is the old "spice" or "border" Pink of American gardens, but not the Border Pink of English gardens, I think, and which I believe is not reliably hardy in this country. [Question: Is it the interesting Fairchild's Mule—the first deliberate garden hybrid—that you have in mind?—EDITOR.]

About the time that I wrote my letter to the Open Column I sent off an order to England which included what Mrs. Wilder refers to as the old-fashioned fragrant double white Pink, D. fimbriatus (and her description is fully justified). When the Pinks from various Garden Neighbors arrived, it was, of course, past the blooming season so these plants and the fimbriatus bloomed together the next spring. As far as I can tell, these old white Pinks are identical with fimbriatus. One of the pink varieties was Dianthus plumarius in the double variety, very distinct from the other varieties—but there were at least two other different varieties and I have not been able to identify them.

One correspondent wrote me that her plants came from an old garden and that her mother was in the habit of raising a new stock from slips and discarding the old plants. It is her belief that they are very shy seeders. In some soils they succeed better than in others, and they resent being covered in any way.

Another correspondent said that her plants came originally from a very old garden in New Jersey.

Mrs. Sinkins is an old standard variety in England, and I saw it in this country years ago and do not know why it is less common here now. Last year I saw plants and seeds offered in one American catalogue at a rather fancy price, but as I already had planted seed purchased in England I did not investigate the American variety. I now have some thrifty plants ready to set out this year which should bloom this year. I hope to have more seed of fimbriatus, Mrs. Sinkins, fragrans, and a few others from England as I wish to grow a great many more Pinks. I hope also to have a supply of Dianthus Allwoodi. By the way, I bought a packet of this seed from Dreer last year and have some tiny plants in a coldframe for setting out this spring. Allwood and various English authorities recommend propagating this variety from slips, but I wished to experiment with seeds. Last year was a very poor one for gardening in this region on account of the prolonged drought so it is hardly fair to judge, but at least I have a few Allwoodi from the seeds I planted, and it is my impression that this variety does not come as readily from seed as D. plumarius, but that in view of its desirability it is well worth trying, and one has the hope of raising some other varieties than the plants that are sold, as there are a long list of varieties in England not yet introduced to this country.

In the same number of THE GARDEN MAGAZINE I had a letter about the early spring bulbs—a matter of vital importance when they were still banned, but of less interest when the Quarantine was removed. But many questions developed in the course of investigation that are still of interest and importance and should perhaps be considered while we are still able to import bulbs.

As in the matter of Pinks I had letters and bulbs sent me by various Garden Neighbors and much interesting information and new acquisitions to my garden resulted. One Neighbor sent Scilla bulbs generously, and I am indebted to her for a wholly new and delightful garden experience with Scillas of different varieties and sizes and colors—a priceless gift. Another correspondent offered Scilla seeds for sale, and another Muscari bulbs. I bought everything that was offered! Later other correspondents sent more bulbs of Scilla, and in the fall I received a further gift of Star-of-Bethlehem bulbs and some tiny bulbs of Grape Hyacinth which are probably the feathered variety of Muscari. From this correspondent I also received the seeds that caused me to write later asking for identification of Snowdrops. May I correct Mr. Zimmerli's statement that I was mistaken about Galanthus Elwesi (and by the way it is Mrs. and not Mr. Howard)? I think I do not erroneously call my bulbs Galanthus Elwesi, because I bought them from a leading Holland grower, and I have since identified them from English publications, garden dictionaries, and there have been excellent articles and illustrations on the subject in American publications during the last year since the ban was removed. What troubled me was that the Garden Neighbor heretofore referred to insisted that her Giant Snowdrops and Galanthus Elwesi were two entirely different and distinct plants—and so they were because her "Galanthus Elwesi" was Leucojum. This was the question I asked and the Editor kindly set me right—also my correspondent discovered the fact for herself a few days before the publication of the Magazine. Moreover, my Galanthus Elwesi is not G. nivalis—as I possess both!

But I did not discover the answer to my original question about these bulbs, and it seems to me that this question is still important. It is important because if the Quarantine goes into effect again in two years, we may need to know where or how we may get more bulbs, and in any

WHAT A DIME'S WORTH OF HOLLYHOCK SEEDS WILL DO

A few Hollyhock seeds and a season's time will completely transform a raw backyard fence not only for that one year but for years to come, as here at the home of Mr. H. R. Mosnat, Chicago, Ill. (Accompanying photographs show the same fence before and after the planting of the Hollyhocks)

event we might like to know whether it is worth while to patronize our own countrymen or foreign dealers. As far as I can find out the state of affairs is something like this: Certain reliable dealers, such as Mr. Purdy of California, are ready to publish the results of their experiments in raising bulbs, and it seems to them that conditions in this country are not favorable for raising good bulbs. From time to time a protest from some other dealer is published saying that they *can* be successfully raised—but this is not followed up by information as to *where and how they may be purchased!* Certain well-known horticultural authorities have said that they could not be obtained. It would certainly be most interesting to have some full and detailed information on this subject with even more information about the different species than we had last year. [One Pacific Coast grower, Mr. Lawler, is offering several varieties of Narcissus.—Editor.]

Among private gardeners theories differ. One says that these early bulbs do not increase from self-sown seed very much. Others have written that they increase freely. It is certain that Scilla, Muscari, and Star-of-Bethlehem produce seed and increase so rapidly as to be troublesome in some places. (I should like to be greatly troubled in that way for a few years!) The Garden Neighbor who had the Giant Snowdrops and the Leucojum said that both produced seed and she was in the habit of raising new bulbs from seed. At the time of her correspondence the Snowdrop seed had gone, but she sent me a few seeds of Leucojum which I planted in my garden, but as they take a long time to grow it will take a long time for me to know the result. It ought to be good garden usage for everyone who has a hardy garden, or a shrubbery, to plant at least a few of these early bulbs for the future. Muscari should be planted in clumps of blue and white mixed for best effect. They may be planted along the edge of a bed, where hardy Pinks or Arabis are used for an edging.

If the Quarantine had not been lifted last year, we should undoubtedly have heard more about the efforts of American nurserymen to raise these early bulbs, as more than one had them ready for marketing this season. It has seemed to me that my own experience in this matter may be of interest.

A serious illness in the family prevented my attending to bulb and plant orders last fall until late October. It was my intention to invest in the early bulbs principally, but at that late day the stocks were practically exhausted so that I only got a few, but the search developed various interesting facts. The first bulbs I received were some Heavenly Blue Grape Hyacinths which came from an Eastern nurseryman who had raised them. They were three years old, "mother-bulbs." They were very much larger than the ordinary bulbs, perhaps $1\frac{1}{2}$ inches in diameter. The rest of my purchases came from various well-known Boston dealers.

Leucojum (vernal, I think) were Californian grown bulbs, very large, much larger than any Holland-grown bulbs that dealer had ever had. At another dealer's the bulbs were very large and firm, all Holland grown. Besides the ordinary varieties of Tulips, Narcissus, etc., I bought Chionodoxa and double Snowdrops, fairly good sized bulbs; and at another equally reliable shop the bulbs of these varieties were about half as large—and here I was told that Californian bulbs were not reliable—that out of one lot of bulbs only a few flowered, etc. I believe this experience is not unusual—and that is why we ought to know more about the subject. [Our own experience at Garden City with Washington state Daffodils was quite satisfactory—could not see any difference as compared with imported. —Editor.] It is probable that there may be a much larger supply of Holland bulbs this year—but we cannot wait a year or two to study results before ordering others if the Quarantine goes into effect in two years. At the old prices, about 60 cents a hundred instead of present prices of 60 cents a dozen, everyone could afford a few hundred of each variety and experiment at leisure. And I venture to say that any one who made that venture for the first time would be well repaid the very first spring thereafter—and when they began to increase to a troublesome extent there would be plenty of new gardens ready to receive the surplus. —R. F. Howard, *South Lincoln, Mass.*

Clothing Waste Places with Petunias

[*See picture below*]

To the Editors of The Garden Magazine:

LOVERS of gardens beautiful here, there, and everywhere, find themselves puzzled sometimes as to what to do with the strip of land just inside the sidewalk; and, perhaps, how to overcome the eyesore of some stranger's vacant lot next door. Costly plants do not pay in either case, for careless passers, dogs, and children will make "short cuts" through;

and what is more, owners of vacant lots are apt to come any time and destroy whatsoever may be planted in adapting the land to their use.

Up Donaldsville (Ohio) way, however, one gardener has solved the problem in very simple wise by investing lavishly in Petunia seed. These seeds are put out in the strip of earth cleared for them just inside the sidewalk and, again, over the spare land adjoining the garden. In type the flowers vary from the novel yellow-flowering Petunia with finely-fringed blooms to those of the commoner sorts—Snowstorms, Rosy Morn, and soft carmine-pink Petunias; rich crimson varieties with distinct white stars at center; rose-colored—all are here!

Once the seed are planted nature serves as chief gardener. Petunias, while blooming from early summer continuously till frost falls, are among the most easily cultivated of all the showy and free growing annuals known, and they have the happy habit of escaping set confines. The result is a riot of dainty, charming, effective color-play all the months during their blooming which fills every room inside the dwelling with a sweet scent that travels, too, far up and down the road.—Felix J. Koch, *Ohio.*

A Little Garden of the Thousand Isles

To the Editors of The Garden Magazine:

IN YOUR February issue there was a scene on Rush River that has prompted me to send you photographs taken from our bungalow on the St. Lawrence River very close to Gananoque. Looking down through the channel, scenes of this description are not uncommon and, on occasion, two or three of the boats may come within the range of vision. The Sumacs are plentiful and resemble Palms or huge Ferns in the photographs that we are privileged to take during the summer months.

In another picture (which was taken a short distance to the right) you will notice that we cover the rocks with Petunias, California Poppies, Sweet Williams, Coreopsis, Asters, Sweet Alyssum, and Portulacas, and sometimes with Cosmos and wild flowers. The photograph gives but a small portion of the floral display, which is greatly admired from the river side. Gananoque is at the heart of the far-famed Thousand Islands and scenes of this character are quite plentiful.—Clifford Sine, *Gananoque, Canada.*

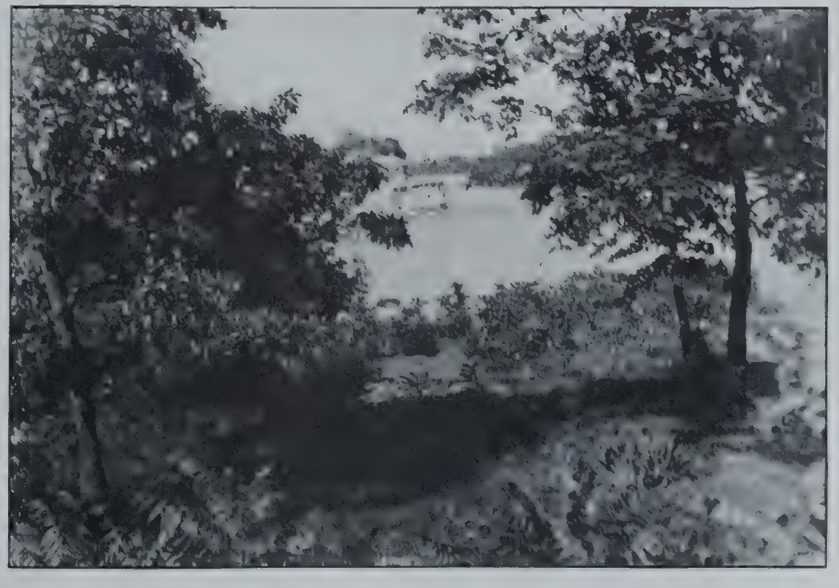
GARDENING NEAR GANANOQUE

Petunias, California Poppies, Portulaca, Coreopsis, Sweet Alyssum, and other familiars rise from the grey of rocks, throwing bright patches of color against the river blue like embroideries on some quaint, gay quilt; and, near by, Oaks and Sumacs make a frame for river scenes (left). Garden of Mr. Clifford Sine at the heart of the Thousand Isles (see text above)

Beneficent Vigilantes of My Garden

To the Editors of The Garden Magazine:

ALL flower-lovers know what great service birds and toads do their gardens by destroying plant foes of many kinds. They offer the birds every inducement to nest about their homes, but seldom make any effort to provide congenial quarters for that most vigilant of night-watchmen, the common toad. The large family of them that came unexpectedly to my garden have by faithful labor rid the plants of almost every insect pest, and have won especial favor by making way with large colonies of ants that, together with the accompanying aphides, have been very bothersome. The toads have thus proved themselves to be true friends of the gardener and deserving of more attention than they usually receive.



A MOST HOSPITABLE ROCKERY

Where not only plants but those friendly co-workers of the gardener, birds and toads, make themselves at home (see accompanying text). Garden of Mrs. Lucien B. Taylor at Taunton, Mass.

A home for these worthy batrachians was unwittingly provided as a result of my desire for a rockery and a bird-bath in a garden that seemed too small for such additions. By combining the two, however, the problem was finally solved. Large stones were heaped in a mound at one end of the Iris bed, the pile being broad enough at the top to allow for sinking in a shallow cement bowl for the bird-bath. When the crevices between the rocks were filled with soil, there was found to be room for many rock plants. Dwarf Alpine Asters, white and crimson Thyme, three shades of Moss Pink, Soapwort (Saponaria ocymoides splendens), Kenilworth Ivy or Mother-of-thousands as I like to hear it called, Houseleeks, Babysbreath (Gypsophila repens), Speedwell (Veronica rupestris), Cupflower (Nierembergia rivularis), Wild Columbine, Early Saxifrage, and the common Polypody Fern thrive on the

A SNOWBALL THAT HAS SURVIVED A SCORE OF NORTH DAKOTA WINTERS

Weeks of sub-zero weather have failed to diminish the zest of this fine Viburnum (V. opulus sterile) at the home of Mr. C. L. Meller, Fargo, N. D.

rockery, with Megasea (Saxifraga cordifolia), Polyanthus, Maiden Pink, Arabis, various Sedums; and German, Siberian, and Crested Iris surrounding its base. I find that I cannot keep either the Speedwell or the Cupflower through the winter and so have to set out new plants each spring. I consider them, however, important additions to the rock garden and well worth the extra effort necessary to grow them.

One day while working about the plants on the rockery, I was startled to discover a fat toad blinking at me from beneath one of the stones. A few days later another appeared, followed by still others, until I began to wonder whether I was to be afflicted with a plague of toads like the plague of frogs that Aaron brought forth with his rod from the waters of Egypt. Not having a natural interest in toads, it took me most of the summer to learn how much they were benefiting the garden, and to turn a slight antipathy for them into an honest liking. Now for three summers the rockery and bird-bath have been in constant use, the toads sometimes taking possession of the bird-bath when the weather is hot. There are perhaps nearly three times as many toads in the garden as there were before the rockery was built, and there seems to be little danger of ever over-crowding the tenants. Almost any day early in the afternoon five or six huge fellows may be seen looking out from various vantage points between the stones as if guarding the entrances to a witch's cave, not, however, the wicked hag of our childhood's fairy tales, but a kind brown fairy who patiently watches over the growing flowers and helps to make the garden a pleasant and peaceful place in which to wander.—Kathryn S. Taylor. *Taunton, Mass.*

Little Californians at Home in Ohio

To the Editors of The Garden Magazine:

I WONDER how many subscribers in the Eastern and Middle-western states had Baby-blue-eyes (Nemophila insignis) in their gardens last summer and fall? These charming little Californians are just saying their first how-do-you-do to our Middle-western posies, and they are doing it with a most engaging smile.

The plants come up well from seed, forming little bushes four or five inches tall of rather fern-like leaves. They soon betray their curiosity by craning their necks over into neighboring ground. Mine got a very late start, but, in spite of it, have trailed along in unexpected directions for a couple of feet. The flowers are single and have pure white centers reaching about half-way up the petals, where they are suddenly surrounded by a border of wonderful blue extending to the outer edge.

Here in the vicinity of Cleveland the first week of December, in spite of the cold, I find Baby-blue-eyes peeking up at me through the fallen oak leaves, apparently as happy as though they were on their native mountains, telling their secrets to the low blue Lupins.

Don't miss the fun of raising some next year.—Mrs. Clarence H. Judson, *Lakewood, Ohio.*

A Twenty-Year-Old Snowball in Dakota

To the Editors of The Garden Magazine:

SOME shrubs were evidently meant to be massed, others with a growth much more symmetrical, never attain their fullest possible development except when grown as garden specimens. Not the least of these is the common Snowball or Guelder-rose (Viburnum opulus sterile.)

As to hardihood, how can there be a much hardier shrub than this Viburnum which will endure without ever killing back, weeks of sub-zero weather, seasons of drought and insect ravages year after year. If nothing be done to combat them, plant lice can be counted upon every year and never a leaf is left uncurled. Occasionally there comes a year when the lice are conspicuous by their absence and then a well grown, properly pruned Snowball bush is truly a thing of beauty and a joy all summer. The lice can be conquered if only the spraying be done on time and the market affords some excellent preparations for the purpose. As to soil, the Snowball is not exacting, though its rate of growth is perhaps the slowest of any of the Viburnums.—C. L. Meller, *Fargo, N. D.*

Protecting Early Crops from Late Frost

To the Editors of The Garden Magazine:

THIS experiment, an utterly new one to me, may help others, although doubtless it has been tried many times.

Last season shortly after our first crops of Beans, Corn, etc., were well up there came a cold spell with a heavy frost predicted. I knew, of course, that it would not hurt the more hardy stuff, but I wondered about the Peas, Beans, etc., that were doing so nicely and were up about 5 or 6 inches. I figured an experiment would be worth while, as the freeze would undoubtedly get them if left unprotected, and there were too many to try to save by covering with papers. So we went up and down the rows pulverizing the dirt and then raking it up (with our hands so as to not injure plants) till where rows of vegetables had been, there were long mounds of earth. This, due to the prolonged cold snap, we left on for 3 days (the days were fairly warm), then we took our hands and a hand weeder and clawed the dirt away and found our vegetables in perfect shape. We sprinkled them the next morning (which was warm) to remove the dust from the leaves. Aside from protecting the Beans and other things, this procedure brought the cut worms, which were very numerous, to right below the surface of the mound and in removing the dirt, we were able to kill hundreds which might otherwise have done severe damage. Also we had more abundant crops of these vegetables and had them earlier than our neighbor, who had protected his small patch with jars, papers, etc.

In Kansas City, Mo., two years ago I raised a "bumper crop" of Cotton on one plant. It was beautiful—and seemed an oddity to the people in that immediate vicinity.—Billie Ballon, *Springfield, Ill.*

The subtle charm of this lovely room lies in the delicacy of form and color radiating from the French and Venetian hand-wrought furniture and the happy accordance of the exquisite accessories

The Galleries of Suggestion

MANY interiors distinguished by the charm so apparent in the Sleeping Room pictured above, have been inspired by a stroll through these interesting Galleries.

¶ Your visit will reveal furniture possessing the value, both decorative and material, which is as essential to a well-appointed interior as smart clothes are to a person of accustomed well-being.

¶ Such furniture may be of simple, inexpensive character, yet it never becomes *passé;* for in design and finish it breathes the undying spirit of that leisurely age when a good cabinetmaker was regarded as not merely an artisan but as an *artist*. Today there is a group of men imbued with this same spirit, working together in a single community maintained by this establishment at historic Fort Lee atop the Palisades. These skilled cabinetmakers bestow upon each object they create a devotion to their art well calculated to perpetuate the Old World traditions handed down from one generation of their craft to another.

¶ And because they are *working together*, you may enjoy the lifelong companionship of their finely wrought cabinetry without indulging in extravagance. As to its arrangement, and the selection of appropriate accessories, you are free to call upon the decorators at these Galleries for any suggestions which you think may prove helpful.

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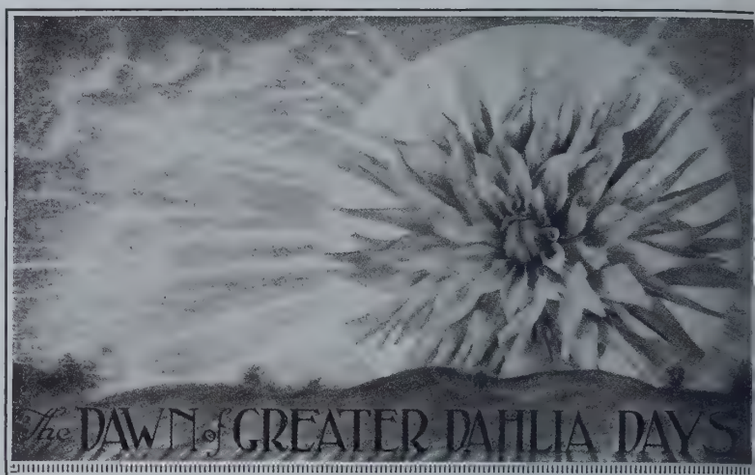

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Margaret E. Millis, amaranth-pink, H. C.	$2.00
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F. W. Fellows, orange-scarlet, Cactus	.50
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contains such grasses as are particularly adapted for growing where shade rules. Prices same as for The "Dreer" Mixture.

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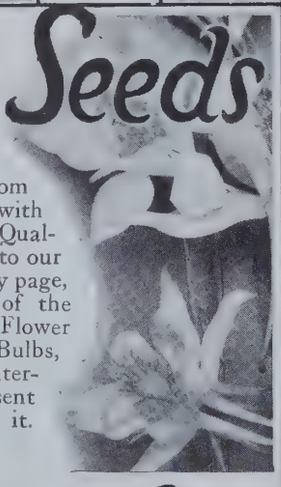
This popular priced mixture is composed of grasses which are adapted for the purpose of producing turf which retains its rich green color and velvety appearance throughout the entire summer and fall. **Per qt., 35 cts., postpaid.** By express or freight at purchaser's expense, **per qt., 30 cts.; 4 qts., $1.00; peck, $1.75; bushel (20 lbs.), $6.50.**

Dreer's Garden Book

Continues to serve the nation as a trustworthy adviser on all garden matters. 224 pages of facts about the choicest Seeds, Bulbs and Plants, supplemented by hundreds of illustrations, (some in colors) are yours free for the asking. Please send for it TO-DAY, mentioning GARDEN MAGAZINE.

HENRY A. DREER 714-716 Chestnut Street Philadelphia, Pa.

Childs Seeds



Our New 1924 Catalog has been completely rearranged from start to finish. It is filled with helpful suggestions for you. Quality of our stocks and service to our customers rings through every page, bright colored illustrations of the most desirable varieties of Flower and Vegetable Seeds, Plants, Bulbs, Shrubs and many new and interesting features. It will be sent free, a post card will bring it. Send for your copy to-day.

New Color Harmony Chart

Everybody naturally loves beautiful coloring, especially in their gardens, and up to now there has been no aid for Garden lovers, but at last our new Garden Color Harmony Chart (which cannot be supplied by any other Seedsman) solves the problem of color grouping and is by far the most complete guide for color in the gardens that has ever been worked out.

This wonderful chart with color schemes of gardens, names of practically every known flower under its proper color, and many other helpful suggestions is fully described in our catalog. The price of this chart is $2.00.

JOHN LEWIS CHILDS SEED CO., Inc.
FLORAL PARK, N. Y.
Consolidated with EDWARD T. BROMFIELD SEED CO.

BETTY *EASTERN STAR* *EMMA MARIE*

Dahliadel Introductory Offer

We want every Garden Magazine reader to know Dahliadel Quality.

We are leaders in collections. Five fine dahlias, including Break O'Day, for the price of two. All tagged, true to name, and fully guaranteed, for $1.00 Postpaid.

If interested in flowers you should have our 1924 Catalogue of Dahlias of Quality and Distinction, illustrating and describing many of the finest dahlias ever introduced, such as Jersey's Beauty, Emma Marie, Mrs. John M. Root, Insulinde, Betty, Shudow's Lavender, and many others.

Write to-day for Dahliadel Catalogue and Introductory Offer, which is the greatest value ever offered in dahlias.

DAHLIADEL NURSERIES
WARREN W. MAYTROTT
Vineland New Jersey

A design after Goya, hand-blocked on 60-inch linen, in characteristically Spanish color combinations.

THE work of the great Spaniard, Goya, was the inspiration of this new printed drapery linen.

Not only was Goya one of the greatest etchers the world knows, a famous portrait painter, and renowned for his genre paintings, but he stands first among 18th century Spanish painters as a designer of tapestries.

This pattern so full of the Goya spirit, with the charming contrasts of color, the graceful sweep of scrolls, the extremely interesting motifs of its cartouches, makes an unusually captivating fabric. It is being shown on four backgrounds —Green, Scarlet, Spanish Yellow and Black. With the present interest in things Spanish, this design and other printed linens, all exclusive in this country with F. Schumacher & Co., offer an especially varied and attractive selection.

Your own decorator or upholsterer will arrange for you to see this Goya printed linen and other Schumacher fabrics. He will also arrange their purchase. F. Schumacher & Co., Importers, Manufacturers, Distributors to the trade only, of Decorative Drapery and Upholstery Fabrics, 60 West 40th Street, New York. Offices in Boston, Chicago, and Philadelphia.

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Styles for every room in the house

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Sanitas covered walls have an adaptable beauty that endures for years.

TO those who are beginning anew the joys of homemaking, the harmonious treatment of the walls is a matter of supreme importance. The wall decoration frames the room and its furnishings, and, when wisely selected, accentuates their characteristics of form and color. At the same time it inevitably stamps upon the room the personality and taste of its owners.

The delightful range of patterns and colorings of Sanitas Modern Wall Covering, and its remarkable adaptability to every style of interior decoration, make this the ideal material for the modern room reflecting truly personal qualities, or as a background for period furnishings.

Sanitas Modern Wall Covering is made on cloth, ready-painted with durable oil colors that can be kept clean and fresh by occasionally wiping with a damp cloth. It does not crack, tear, peel, blister, or fade, and can be applied over any flat surface; old walls in which the cracks are properly filled, wallboards, or new walls as soon as the plaster is dry. Its unique qualities of beauty, cleanliness and durability, obviating the necessity for constant re-decoration, make Sanitas Modern Wall Covering truly an investment, not an expense.

Sanitas Modern Wall Covering comes in styles for every room in the house.

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plain colors and tile and mosaic effects, for kitchens, bathrooms, laundries, etc.

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floral designs and reproductions of tapestry, leather, grass-cloth and fabrics.

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EVEN your roof becomes a thing of character — genial and colorful. The several colors of Johns-Manville Asbestos Shingles are blended into a charming tapestry that will give delight and shelter for generations to come.

For, in addition to its beauty, this roof is endowed with permanence, fire-safety and surprising economy. Send for our booklet on Colorblende Shingles. Address Johns-Manville Inc., 296 Madison Avenue at 41st Street, New York City.

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That Russwin Hardware is used throughout thousands of such homes is a tribute to the beauty of Russwin designs—and to the public faith in the name Russwin which for over eighty years has been a guarantee of trouble-free service and absolute security.

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Make your own hardy garden. Our list of hardy perennial seeds is the most complete issued in America. Many novelties not obtainable elsewhere. Annual seeds also, in finest assortment,

GLADIOLI, DAHLIAS,
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Hardy Perennial Plants,
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Write for List to

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at the following rates until surplus is exhausted:

12 good varieties, our choice, unlabelled.....	$ 1.50
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Catalogue and 16 other combination offers, free.

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Largest Selection of DAHLIAS in the U. S. A.

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Are most alluring, particularly the *Mrs. Scott Elliott Hybrids*, which are tall plants with long-spurred flowers in all colors, including beautiful new rose and scarlet shades. They will please you, I know. *$3 for 10, $5 for 20.*

Delphiniums, Farr's Wyomissing Hybrids, extra large flowers, many beautiful shades. *$3 for 10, $5 for 20.*

Better Plants by Farr, my new catalogue, is free. Send for it.

BERTRAND H. FARR, Wyomissing Nurseries Co.
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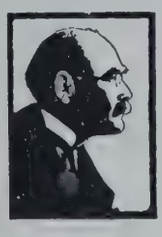

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FOR BOYS AND GIRLS

"Of course the Scouts will want to adopt that story (His Gift) and some bored millionaire ought to be allowed the thrill of seeing that they get it, a copy to every scout master at least."—Angelo Patri. At bookstores, $1.75.

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Zeus—a remarkable decorative. It has great size, extra stiff stems and a fascinating color combination; rich glowing red with each petal distinctly tipped gold. A Dahlia Masterpiece.

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New Creations Old Friends

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The Peacock Dahlia Farms are the largest in the world, and have the largest and best equipped warehouse and storage cellar.

New Introductions for 1924

Never have we had such wonderful creations to offer to the Dahlia World. In our de luxe 1924 Catalogue you will find complete descriptions and illustrations of the New Peacock Dahlias. There are 8 full-color reproductions. A copy will be sent upon request to all who would like to know more about our wonderful Dahlias.

PEACOCK DAHLIA FARMS, Inc.
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Schulz's Gladioli

If you search the world over you will not find six better varieties at prices within reason than the 6 offered below.

Alice Tiplady—Just about the best of the Primulinus varieties. Color rich saffron orange. . . **Doz. $2.00**

Dr. Norton—Rich delicate pink, primrose center. Edges touched deeper pink. A great gladiolus. . . . . **Doz. $2.50**

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Pink Perfection—This magnificent pink is one of the best. . . . . **Doz. $1.50**

6 Bulbs of each of the above varieties, **$5.00 postpaid.** **12 Bulbs** of each of the above varieties, **$10.00 postpaid.**

Plant from April 10 to July 10 for Succession of Gladiolus Blossoms

6 Dozen Good Ones—Favorites, $6.00 Postpaid

Brenchleyensis—Vermilion scarlet
Kunderd Glory—Large creamy white, crimson stripes, ruffled
Gretchen Zang—Large Deep pink
Glory of Holland—One of the best whites
Niagara—Creamy white, splashed carmine
Yellow Hammer—Pure yellow, slight red in throat

Send for Our 1924 Catalogue

Contains detailed description of our entire collection of Gladioli, besides our wonderful collection of Dahlias (over 300 varieties) also Trees, Evergreens, Shrubs, Perennials, Irises, Fruit Trees, and seeds.

In fact—Everything for Your Garden at Reasonable Prices—Request Brings Catalogue

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Joyous Easter Bells

EASTER Sunday falls on April 20th

Nothing sweeter as a remembrance to a friend, a *Real Joy* to an invalid, or "Shut-in" than a bowl or jar filled with our fragrant

MAGIC LILY OF THE VALLEY
So pure, So entrancing.

They flower in full glory in Our Prepared Moss Fibre in 16 to 18 days from time of planting.

10 Pips with Fibre to grow . . $1.35
20 Pips with Fibre to grow . . 2.25
50 Pips with Fibre to grow . . 5.00

Can be planted in any bowl or jar without drainage. The price *includes delivery* (7th and 8th zones add 10 per cent.) with sufficient Moss Fibre to plant and full directions. ORDER EARLY. **Demand always exceeds supply.**

A GARDEN OF LILIES
This Superb Collection $3.00

Lilies are your Garden's Glory. Do not fail to plant them, they come up year after year, and multiply. *NOW* is the time. *Each*

LIL. AURATUM. The Giant Gold banded Queen Lily of Japan, unrivalled, with its immense waxy fragrant flowers. **.55**

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We offer for April only this SUPERB Collection *including delivery* (7 & 8 zone add 10%) for $3.00. We send with every collection full directions for success with Lilies. We SPECIALIZE IN *RARE SEEDS* and bulbs. You may find them in our Spring book. Ready now.

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Have A Glorious Rock Garden

A few dollars will buy seeds of the World's Choicest Alpine Plants.

Rare 1923 Alpine Seeds from one of the largest and choicest collections in Britain, sold at most reasonable rates. Lists free. Sample packet containing twelve distinct varieties, $1.00. Thirty varieties, $2.00.

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Assorted Choice standard varieties sent postpaid at following prices. Cash with order. Safe delivery guaranteed.

Dahlias per doz.		*Gladioli per 25*	
Labeled	**$3.00**	**Labeled**	**$1.50**
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Choice dahlia seed $1.00 pkt.

Write for illustrated Dahlia-Gladioli catalogue

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April Showers Whenever You Want Them

The Skinner System of Irrigation gives to your vegetable and flower gardens just what the April showers do—soft, gentle rain—the kind that soaks in deep, does not form puddles, and leaves the soil moist and pliable.

But the big point is that it does this *whenever you want it.* Because of that, dry weather threatens no disappointments, and your plants will thrive and bear fruit in a way that will bring unfailing delight.

Easy to install, easy to operate, easy to pay for.

Tell us the dimensions of your garden and we will send you an estimate of cost with information of great interest to gardeners.

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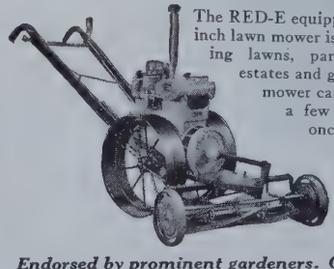
SKINNER SYSTEM OF IRRIGATION

Red E Power Cultivator

Does work of four men or one horse, seeds, weeds and cultivates narrow row crops, does light plowing in garden-land, turns over soil in poultry yards, prepares beds in greenhouses, weeds, cultivates, discs, harrows, pulverizes and mulches between wide row crops, mows, the lawn, does stationary power work and hauls light loads.

Sturdily built and perfectly balanced—with 4 H. P., 4-cycle Air-Cooled Engine, Bosch Magneto, Automatic Lubrication and Complete Dust Protection. Many parts interchangeable with well-known low-priced auto. Uses Planet Jr. Wheel Hoe and One Horse Tools—all easily attached or detached. Throttles to slower speed than any other power cultivator. Turns easily.

POWER LAWN MOWER



The RED-E equipped with our 31 inch lawn mower is ideal for mowing lawns, parks, cemeteries, estates and golf courses. The mower can be attached in a few moments and, once on, furnishes an outfit that will take the place of six men with hand machines.

Endorsed by prominent gardeners. Order through your dealer or write us for literature and prices.

M. B. M. Manufacturing Company
379 Reed Street, Milwaukee, Wisconsin

New Simplified Lawnmower

$18.00 direct from factory

Cutters gather grass and shear it off evenly. No ridges are left in the lawn.

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NO GEARS—NO LONG BLADES

Trims and Cuts at Same Time

Ten years have been spent in developing the new MontaMower—now guaranteed mechanically perfect. Designed to trim close to walls, trees, shrubs, etc.—*no handwork necessary*. Does not pick up stones, twigs, etc. Thousands of satisfied owners.

Simple, Durable and Different

No gears—no long blades to break or get out of order. Eight pair of cutters driven by eight wheels gather and cut the grass.

Handles as Easily as a Rake

Weights only 7½ lbs. Any woman or child can easily operate it. Particularly suitable for steep lawns and terraces.

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MontaMower cutters resharpen themselves like scissors—they will last from two to four years. At end of that time cutters can be replaced by new ones at no more expense than sharpening ordinary lawnmower.

Unlike ordinary mower MontaMower trims cleanly right up to walls, fences, etc.

MontaMower leaves no fringe around trees to be cut by hand.

MontaMower has one qualification in common with other lawnmowers. It will not give efficient service on sandy, loose, very wet or swampy ground—nor is its use recommended for high, tough grass or thick weeds.

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If your dealer cannot supply, send check or draft for $18 direct to factory. Guaranteed to be as represented or money refunded. Delivery charges prepaid if remittance accompanies order. Delivery guaranteed on date specified in your order.

MONTAGUE MFG. CO.
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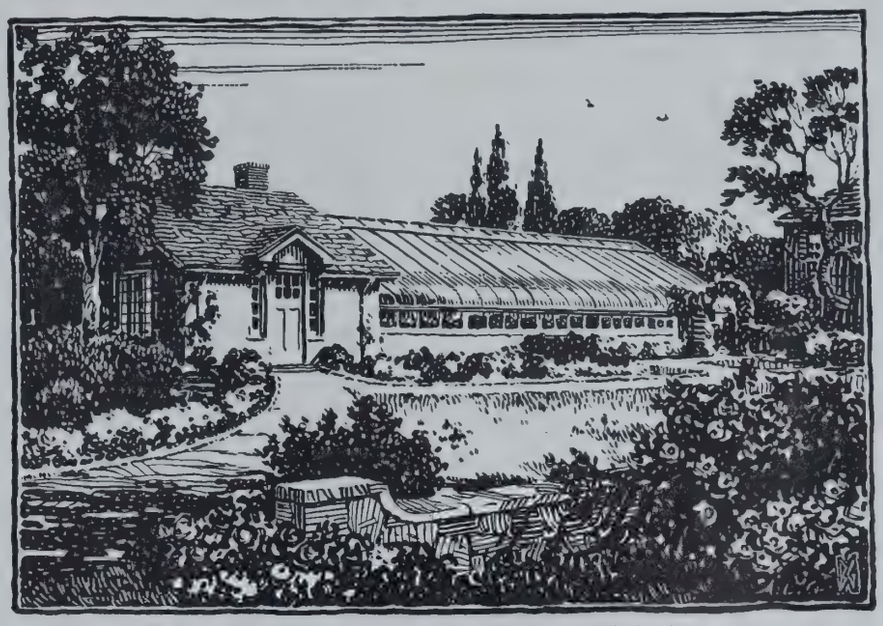
MAIL COUPON TO-DAY

Enclosed find remittance of $18.00. Please send one MontaMower to this address on or about ..... Date

Name .....

Address .....

Hitchings Greenhouses



The curved eave house is decidedly architectural in its lines. It will fit right in the finest of surroundings.

We Build Two Kinds of Greenhouses One Costs Less Than The Other

THE one that costs more than the other is like this one shown. It has a curved eave and many other attractive points that make it a decidedly ornamental feature of your grounds. The equipment and finish throughout is the finest. No better greenhouse is built.

The house that costs less is called The Sunshine Shop. It's every bit as well built as the other, only it is less ornamental. It will grow every bit as good flowers, and is decidedly attractive in appearance. It costs about the same as the average automobile.

Glad to send you printed matter about both houses. Or come and talk them over with you.

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Our 1924 Catalog

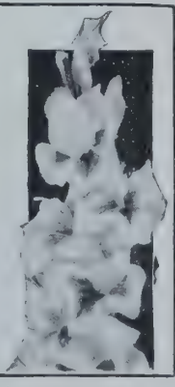
from our new location is better than ever, containing a list of rare and beautiful

Irises, Peonies and Gladioli

Also illustrations of our wonderful varieties and complete cultural directions. The catalog that is kept and referred to constantly.

Write for it to-day. SENT FREE

RAINBOW GARDENS Farmington, Minnesota



ROSES=DAHLIAS=GLADIOLI

New and Beautiful Varieties

The Padre's Botanical Gardens
Santa Barbara, California

have for years been producing unusual and fascinating varieties of Roses, Dahlias, and Gladioli, in accordance with scientific methods of selection and reproduction. The results are remarkably beautiful, with a range of color, purity of form, and hardiness in all climates, that are the delight of gardeners.

Now the growth of Santa Barbara is spreading around the Gardens, and much of the land is to be subdivided into lots. For immediate stock reduction, we offer

20% and more discount on Roses, Dahlias, and Gladioli, (according to variety).

40% discount on New California Giant Gladioli in lots of 1,000.

Here Are a Few Outstanding Specialties at Very Special Rates:—

3,000 large size Agapanthus umbellatus plants, only $3.00 per dozen, $10.00 per 100, and $25.00 per 1,000.

Iris longipetala, Iris Styla hybrids, my own production. Iris atropurpurea; Iris Sibirica, $1.75 per dozen; Iris Tingitana, Iris Helferichi hybrids, only about 100 plants.

10,000 Montbretia bulbs, new hybrids.

A fine collection of Dahlias, 250 different varieties, the cream of California and European varieties, including a few of my own.

California Giant Gladiolus, my own new race of Gladiolus. Will sell as low as $15.00 per 1,000 second size bulbs. Also 15 fine named varieties.

Moreas, allied to the Iris, a very fine lot.

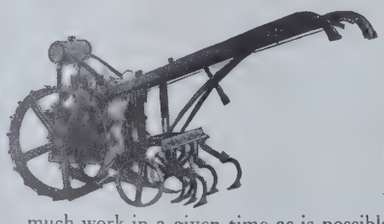
Delphinium Hybridum, bred with California wild species.

This is a wonderful opportunity to secure at great reductions the fruit of a lifetime of botanical experimentation.

New illustrated catalogue, listing native and rare exotic plants, mailed on request.

Rev. George Schoener, Director, The Padre's Botanical Gardens
125 SOUTH MILPAS STREET, SANTA BARBARA, CALIFORNIA

ACME-Jr. GARDEN TRACTOR



FOR THE GARDENER,
FLORIST, SEEDSMAN, NURSERYMAN
and SUBURBANITE

Every Garden Cultivation task is done easily and quickly.
Simple and easy to operate.
Built to the well-known ACME standard of excellence.
You can depend upon it to accomplish from four to ten times as much work in a given time as is possible with hand tools.

Endorsed by prominent users. Write for description.

THE ACME CULTIVATOR CO.—LEETONIA, OHIO

The Naylor Hydro-Chemical Sprayer

meets YOUR needs

Attach it to hose and let the water-works pump do your pumping.

AS EASY AS IT LOOKS

The force of water going through nozzle draws the concentrated insecticide or fungicide from the tank in the constant ratio (10 to 1). Hence the one gal. tank of insecticide will do 44 quarts of spraying.

NO HEAVY TANK NEEDED
Any strength of spray easily obtained.

3 sprays { Cone Mist / Fan " / 40' Stream — **PRICE $10.00 DELIVERED**

Satisfaction or money back

NAYLOR MFG. CO. Hastings, Nebr.

Tricker's Water Lilies

YOU would not hesitate to have asters or sweet peas in your garden. Water Lilies are every bit as successful and far more novel and beautiful.

Hardy varieties can be shipped and planted in May; tender varieties in June. If you select the right kinds (see my catalogue) you can have both day and night bloomers.

Tricker's Water Lily Booklet—Free—

will help you to select desirable varieties, tells how to care for them, gives directions for making a pool, with other valuable hints on water gardening. Send for a copy.

William Tricker
661 Forest Street
Arlington New Jersey

KEYSTONE ROSES

and Beautiful Ornamental Shrubs

Also the finest assortment of Perennials, Bulbs and Roots in growing which we have specialized for years. Some of the most carefully planted estates in America are among our customers. All goods packed with care and shipped promptly.

Keystone Fruit Trees

Our fruit trees are all guaranteed healthy and true to name. Grown under ideal conditions of soil and climate. The right size for successful planting and quick bearing in your garden or farm.

Send for new catalogue listing a wide variety of choice stock with valuable hints on culture.

KEYSTONE STATE NURSERIES
Dept. 81 PITTSBURGH, PA.

Kill Your Plant Pests *NOW!*

THE pests that bothered your plants last year laid eggs.

They are now young insects in the soil of your garden, less than three inches below the surface, waiting to come out to ruin your plants.

They are soft, weak and easy to kill.

Simply saturate the soil when you break ground with a dilution of Dy-Sect, a proven cure.

This will get your plants off to a healthier start than ever before.

During the Summer spray occasionally with Dy-Sect. It will kill even the rose-bug, hardiest of pests.

Write for the circular that tells what Dy-Sect has done in tests at experimental stations,—or if you wish we will send you a four ounce sample bottle for 30 cents.

A. C. HORN COMPANY
1216 Horn Building
Long Island City, N. Y.

Our Spring Catalogue of

Dahlias
Gladioli
Lilies
Phlox
Iris
and
Hardy
Perennials

is now ready. Send for it, and we will send later our Fall Catalogue of Choice

Dutch Bulbs

Also our special list of Novelties of the latest introduction

FRANKEN BROTHERS

Deerfield Illinois

The FRENCH BINDERS
Good books with artistic binding
COUNTRY LIFE PRESS GARDEN CITY, N. Y.

Fordhook Finest Lawn Grass

THE illustration shows a view of the beautiful lawns on Burpee's Fordhook Farms which were established from the same mixture that we are now offering. We pride ourselves on **Fordhook Finest Lawn Grass** Mixture which from yearly comparative trials at Fordhook Farms we know is unsurpassed for first-class and permanent results. This is due to the fact that we use only the very finest varieties of the most suitable grasses.

Fordhook Finest contains a well-balanced blend of various American and foreign fine-bladed and deep-rooting varieties which have been proved by us to produce the best results under the varied conditions of soil and climate met with in America.

Burpee's Fordhook Finest Lawn Grass Mixture will give a smooth velvety green sod with a thick bottom and free from common grasses which produce unattractive clumps in the lawn and spoil the desired smooth, rich, even effect. **Burpee's Fordhook Finest Lawn Grass** is composed entirely of the best recleaned seed. It is free of all chaff and weighs 25 to 27 pounds per measured bushel. A small quantity of White Dutch Clover is included in **Fordhook Finest Lawn Grass**, but only sufficient to help thicken the bottom of the sod.

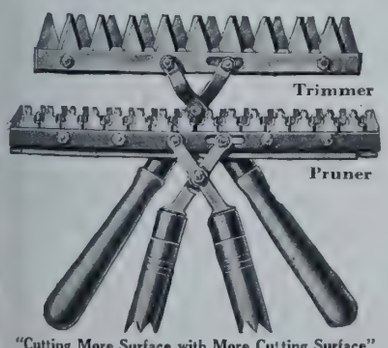
One pound of seed is sufficient to sow a plot 20 x 20 (or 400 square feet); eighty to one hundred pounds for one acre.

The Burpee leaflet "How to Establish a Lawn" will be sent free upon request.

Lb. 60c; 3 lbs. $1.65; 5 lbs. $2.65, postpaid.
By express, **10 lbs. $4.20; 100 lbs. $38.00.**

W. Atlee Burpee Co. ***Seed Growers*** **Philadelphia**

Meet Your Hedge Cutting Job with a Smile!



"Cutting More Surface with More Cutting Surface"

The blades of these tools are made of the finest high-grade carbon steel

It's a joy indeed to meet the ever-growing hedge problem with a tool that does a maximum of work within a minimum of time and with less efforts than those needed to operate "old-fashioned" hedge shears. Both styles of "Simplicity" cut both opening and closing—they turn hitherto wasted motion into productive progress along your hedges.

Simplicity Hedge Pruner and Trimmer

Perfectly balanced for easy operation, this three pound tool brings into action 31 fluted, keen-edged teeth that clip a clean path 16 inches wide, through any hedge. Price, $7.50. West of Mississippi, $8.00.

The Simplicity Hedge Trimmer is intended for use on new growth only. Greatest tool for trimming Privet, Barberry, etc. Cutting width, 12 inches. Price $5.00. West of Mississippi, $5.50.

Ask your Dealer about the "Simplicity." If he can not supply, order direct. Discriptive circular on request.

TRENTON PATENT MFG. CO., 112 Murray Street Trenton, New Jersey

Trade Mark

Established 1880

"OWNERS EXPERIENCE A SENSE OF SECURITY"

with

"FRESHLY FILTERED RUNNING WATER"

At every faucet from a

Loomis-Manning Water Filter

WORTH—REPUTATION

Leading Architects and Engineers

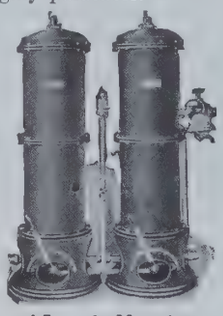
Have for forty years specified Loomis-Manning Water Filters for use in their great creations and under such specifications we have installed Loomis-Manning Filters in many thousands of Homes, Hospitals, Public Buildings, Office Buildings, Hotels and Apartments, etc.

IF YOU ARE BUILDING A NEW HOME, don't fail to ask your Architect to include a Loomis-Manning Filter in his specifications, for it filters all the water, it frees the water from all matters in suspension, color and iron stain, odors and tastes, chlorine odor and taste and delivers it to all the faucets in the home, clean, sparkling and safe for any domestic purpose and it is highly palatable.

LOOMIS-MANNING FILTERS are easily installed in homes already occupied.

LOOMIS-MANNING FILTERS cure hot and cold water troubles and rusty iron waters.

Plans and estimates promptly submitted upon request.



A Loomis-Manning House Filter

Send for Booklet

LOOMIS-MANNING FILTER DISTRIBUTING COMPANY

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Note the Greater Beauty of Well Fenced Homes—

It's because the owner of fenced property feels encouraged to develop his lawn and grounds—to use and enjoy them.

Why not plan now to develop to the fullest the natural beauties of your grounds—behind the friendly protection of a Page Fence—the useful fence that is beautiful.

A PAGE costs no more to install than many fences that are not half so effective. There's a Page Fence man near you who'll give you plans and estimates. Write for his name, and for the illustrated booklet, "Fences for Protection and Beauty," showing typical installations, giving valuable information on property protection. A card brings it. Address

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"America's first wire fence—1883"

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Ingot Iron

The only wire fence made of Armco Ingot Iron

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Makes Your House Like a Thermos Bottle

Keeps it Warm in Winter and Cool in Summer by Insulation

CABOT'S "QUILT" insulates the whole house. It saves the heat in winter—saves from a third to a half of your coal bill. It keeps the heat out in summer, making the house cooler.

Quilt lasts as long as the house. It saves your money and keeps you comfortable all the time. No investment that you can make will earn such dividends as Quilt in cutting down coal and doctor's bills and making the house cozy and healthful.

Quilt is not a mere felt or paper. One layer has insulating power equal to twenty-eight layers of common building paper.

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Cabot's Creosote Stains, Conserve Wood Preservative, Stucco and Brick Stains

We grow Nursery Stock to suit every requirement

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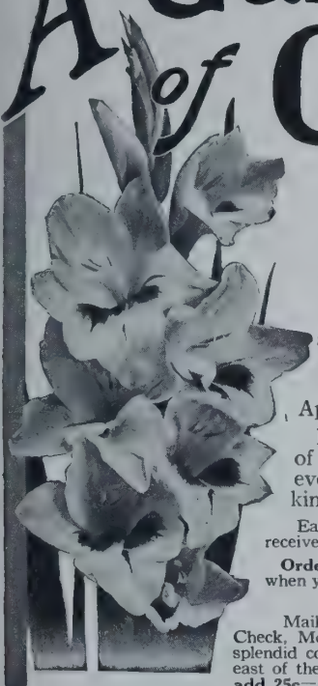
THE BAY STATE NURSERIES

W. H. Wyman & Son, Proprietors

NORTH ABINGTON, MASS.

A Garden Full of Gladioli for $2.00



The Gladiolus is one of the most satisfactory flowers grown and there is no reason why every family cannot enjoy this grand flower—it is as easy to grow as the potato.

Bloom from July to frost if you plant a few bulbs each month from April to July.

For **Two Dollars** we will send **50 Bulbs** of our **Grand Prize** Mixture, which covers every conceivable shade in the Gladiolus kingdom.

Each year we sell thousands of these bulbs and have received numerous testimonials as to their merits.

Order Your Bulbs Now, so as to have them to plant when you begin making your garden.

Simple cultural directions in package

Mail this advertisement, or present at our store, with Check, Money Order, Cash or Stamps, and secure this splendid collection, sent prepaid to any point in the U. S. east of the Mississippi. **For points West and Canada add 25c—($2.25).**

Our 1924 Spring Seed Annual sent on request

Stumpp & Walter Co 30-32 Barclay St. New York City

Juniperus chinensis pfitzeriana

The ideal Evergreen
for town and city

The Pfitzer Juniper, long recognized by landscape gardeners as one of the finest evergreens in cultivation, thrives under conditions where other evergreens cannot be grown.

Not affected by smoke, soot or dust, it is one of the very few that can be depended on to live long and retain its beauty in the average city planting.

Of the broad bushy type, with sweeping blue-green branchlets, it is splendid for foundation plantings against the house. Planted by itself in the open it develops into a beautiful specimen. Grouped with other types it affords striking effects and contrasts.

Heretofore good plants of the Pfitzer Juniper have been scarce and high priced. Appreciating its great merit, Elliotts years ago began to collect and propagate it extensively, enabling them now to offer fine, bushy plants at unequalled values.

Special Offer

Sturdy bushes, 18-24 inches, each **$4.00**
12 for $40.00

Larger specimens, 2-2½ feet, each **$6.00**
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Order now for spring planting

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ELLIOTT NURSERY CO.
Established 1889
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Join The American Rose Society

That you may know and love the *Queen of Flowers* better than ever, share experiences with Rose enthusiasts the world over, and grow finer Roses in your own gardens. The Society gathers and broadcasts authentic information, experiences and inspirations that will improve Roses and Rose growing. Through its cloth bound Year Book, bulletins, flower shows, pilgrimages, and personal correspondence, the Society brings its helpfulness to every member.

Two Special Membership Suggestions:

Membership for 1924, the 1924 Rose Annual, tickets for Pilgrimages, rose shows, etc., a geographic index of members, free advice of the greatest rose experts, EXTRA PREMIUM GIFT of The Book of "Standardized Rose Names." Instructions For Beginners In Rose Gardening, list of Recommended Roses. **$3.00**

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The American Rose Annual

is the recognized reference book for rose lovers. Its volumes are a library of rose knowledge. Many new members have made possible a greater 1924 Annual—the best ever. 240 pps. with plates. Edited for the Society by J. Horace McFarland. Available only to members.

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Mention the Garden Magazine.

The American Rose Society
(Organized 1899)
West Grove Pennsylvania

Over 3300 members in every corner of the world enjoyed our fellowship during 1923. The twenty-fifth Anniversary year of the Society, 1924, is expected to be its greatest year.

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Takes Place of Manure for Lawns and Garden

Alphano is nature's own soil enricher.
It not only takes the place of all kinds of manure, but is far better in every way.
It's richer.
Contains no weed seeds.
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Being in powdered form, it's easy to use.
Being rich in both the quick and slow acting foods, it gives both immediate and long lasting results.
It's heavily inoculated with soil food producing and nitrogen nodule making bacteria, giving it added value.

4 BAGS for $5

4 bags of 100 pounds each for $5.
By the ton in bags, $20.
By the carload in bags, $16 a ton.
By the carload in bulk, $12 a ton.
Prices are loaded on car, at Alphano, New Jersey.

Having a liberal humus content, it eagerly absorbs moisture, acting as a valuable dry weather fortifier.
It enriches sandy soils and holds them together.
It loosens up and makes clayey ones friable and fertile.
Being odorless and in a convenient powdered form, it makes gardening easy for women.
Sold with a guarantee that is a guarantee.
For vegetables, flowers, and lawns we frankly believe it has no equal for the money.
Send for circular giving full particulars.

Standard Agricultural Chemical Corporation

Sole Producers of Alphano. Successor to The Alphano Humus Co.

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Plan Now

for that IDEAL GARDEN which you have had in your mind for so long a time.

THEN ORDER some of the FAMOUS CHERRY HILL QUALITY of NURSERY STOCK which WILL MAKE YOUR DREAM OF YEARS COME TRUE.

Our NEW CATALOGUE will list the WORLD'S CHOICEST both in PEONIES, IRIS and PHLOX as well as in ORNAMENTAL EVERGREENS, SHADE TREES and FLOWERING SHRUBS.

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T. C. Thurlow's Sons, Inc.
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Rhododendron carolinianum, Rhododendron catawbiense, Rhododendron maximum.
Also—Kalmia latifolia (Mountain laurel), Leucothoe Catesbii, Azalea lutea, Azalea arborescens, Azalea nudiflora.
We have excellent stocks of the above and can supply in any quantity 2 to 5 feet specimens.

F. M. CRAYTON & SONS
Nurserymen—Landscape Gardeners
BILTMORE NORTH CAROLINA

Iris and Phlox

I am told that the GARDEN MAGAZINE has nearly 40,000 readers and there may be a few of you who have not yet planted Wellesley grown Iris.

If any of you are so unfortunate, now is a good time to join the rapidly growing army of Garden Enthusiasts who are telling their friends and neighbors about the grower in Wellesley who does business on the principle that ***"He who serves best profits most."***

NOW LISTEN! Send me ***$5.00*** and I will send you ***Thirty-two Iris,*** all labeled, worth 25 to 75 cts. each. This offer holds good only while present stock lasts. The above collection will add up to $10.00 or more so please don't expect me to pay transportation charges.

Mixed Iris, $1.50 per dozen; $5.00 per 100; $45.00 per 1000

Hardy Phlox in choice mixture, $1.50 per dozen; $10.00 per 100

Catalogue for the asking

GEORGE N. SMITH
Iris and Peony Specialist
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Rosebays Laurels Hollies

Conifers, Flowering Trees and Shrubs

We specialize on American sorts. Our elevation among the Alleghanies insures hardiness.

To make friends: A sample 12-18 in. plant from each group (6) B & B by express collect, $5.00. Six smaller plants from any one group, or one from each, to new customers and near zones only, $1.00 postpaid.

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The Glen Road Iris Gardens

SPECIALIZE IN RARE AND FINE VARIETIES OF BEARDED IRISES
Send for List
Grace Sturtevant, Prop.
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KINKADE GARDEN TRACTOR

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A Practical, Proven Power Cultivator for Gardeners, Suburbanites, Truckers, Florists, Fruit-Growers, Nurserymen and Lawn work.

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Grand *New* Gladioli

that you want in your collection. Our catalogue describes them in detail. *Send for it now* as these new ones are selling fast, and stocks are limited.

Try growing gladioli from seed. All the fine new prize-winning varieties first came from seed, however the creation of *better new varieties* depends largely on seed having an inheritance of traits which in combination, tend to produce improved types. To try to produce just such seed has been our lifetime study. We offer hand-pollenized seed, the careful work of Mrs. A. H. Austin.

1 Packet of 150 seeds for $1.00—6 Packets for $5.00

Cultural instructions on each packet

AUSTIN TRIAL GROUNDS 356 North Freedom St. Ravenna, Ohio

Watched by Wild Animals

ENOS A. MILLS' Latest Nature Book

Net $2.50

No. 3 Laying House—3 units

POULTRY fanciers of international reputation use and recommend Hodgson poultry-houses. These houses are made of sturdy red cedar and come in finished sections all ready to erect. They are sanitary, well ventilated and absolutely weather-proof. There are Hodgson poultry-houses for every purpose. Send for illustrated catalog W. It gives prices and complete information.

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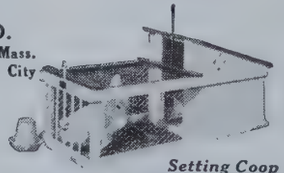
Dog Kennel

HODGSON *Portable* HOUSES



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"RE-MOVE-ABLE"

STEEL CLOTHES POSTS

FLAG POLES

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TENNIS POSTS

No holes to dig. Will not disfigure the lawn. Set yourself in steel socket driven in ground. Posts of iron proof galvanized steel tubing painted and filled with concrete. Instantly removed. Cannot decay, last a lifetime.

Better and cheaper than wood.

Ask your dealer or write for folder G.

NEWARK STEEL POST CO.
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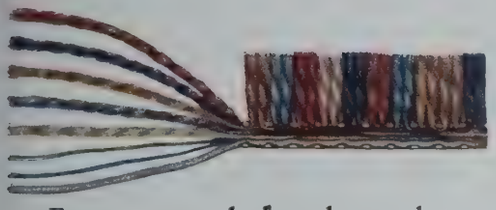
"Hartford-Saxony"

Made exclusively by the Bigelow-Hartford Carpet Company at their mills in Thompsonville, Conn.



For every strand of wool yarn that forms the pattern on the surface of a "Hartford-Saxony" rug, four others are woven into the body, besides heavy binder and stuffer threads that add to the softness of the rug, act as a cushion, and make the rug lie flat on the floor without curling.

Upon request to our New York office, we will gladly send you, without charge, a sample of the "Hartford-Saxony" fabric, a set of color plates and a beautifully illustrated descriptive booklet.

A rug of distinctive appearance

"HARTFORD-SAXONY" rugs have a richness of coloring, a surface of unrivalled softness, and a luxuriousness to the tread entirely unlike any other rug fabric on the market. They have been universally imitated, but never equalled.

Their extreme durability under the most severe wear has made them for years the first choice of hotels and public buildings. Their record in homes has been equally remarkable.

We know of "Hartford-Saxony" rugs that have been in constant use in private homes for twenty to twenty-five years, and still are giving good service.

"Hartford-Saxony" rugs now are being produced in many more patterns and colorings for home use than ever before.

They are made in twenty-eight stock sizes, from 22½ in. by 36 in. to 11 ft. 3 in. by 24 ft., and are carried by most reputable dealers. A small size, 27 in. by 54 in., sells for $14.75; a standard room size, 9 ft. by 12 ft., for $130.00.

If you have any difficulty in procuring "Hartford-Saxony" rugs, our New York office will see that you are supplied. If you can visit any of our showrooms, we will gladly show you the full line.

Look for the full name "Hartford-Saxony" woven in the back of these rugs as a guarantee of quality.

Bigelow-Hartford Carpet Company

ESTABLISHED 1825

NEW YORK	CHICAGO	BOSTON	SAN FRANCISCO
385 Madison Avenue	14 E. Jackson Blvd.	69 Summer Street	770 Mission Street

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"Beautify Your Home With Gold Seal Congoleum Rugs," a new booklet by Anne Pierce, shows all the beautiful patterns in their full colors. Our nearest office will gladly send you a copy on request. It is free.

On the floor is shown pattern No. 379. In the 6 x 9 ft. size it costs only $9.00.

For the Children's Own Room

They want child-size furniture—tiny desks, dwarf bookcases and other wee things. But when it comes to floor-covering, give them a real, grown-up *Gold-Seal* Congoleum Art-Rug. It has every quality that a rug for a child's room should have.

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These modern rugs don't have to be fastened to the floor. They lie perfectly smooth and flat—never turn up at the edges or corners to trip heedless little feet.

Mothers especially appreciate the artistic as well as the practical qualities of *Gold-Seal* Congoleum Rugs. And there's always this important consideration—they are amazingly inexpensive.

Gold Seal
CONGOLEUM
Art-Rugs

GOLD SEAL CONGOLEUM GUARANTEE
SATISFACTION GUARANTEED OR YOUR MONEY BACK
REMOVE SEAL WITH DAMP CLOTH
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Look for this Gold Seal

There is only one guaranteed Congoleum and that is *Gold-Seal* Congoleum identified by the Gold Seal shown above. This Gold Seal (printed in dark green on a gold background) is pasted on the face of every guaranteed *Gold-Seal* Congoleum Rug. Don't fail to look for it.

Popular Sizes—Low Prices

6	x 9	ft.	$ 9.00	1½	x 3	ft.	$ .60
7½	x 9	ft.	11.25	3	x 3	ft.	1.40
9	x 9	ft.	13.50	3	x 4½	ft.	1.95
9	x 10½	ft.	15.75	3	x 6	ft.	2.50
9	x 12	ft.	18.00				

The rug illustrated is made only in the five large sizes. The smaller rugs are made in other designs to harmonize with it.

Owing to freight rates, prices in the South and west of the Mississippi are higher than those quoted.

CONGOLEUM COMPANY
INCORPORATED
Philadelphia New York Boston Chicago Kansas City
San Francisco Minneapolis Atlanta Dallas Pittsburgh
New Orleans Montreal London Paris Rio de Janeiro

Reproduction from a painting in oil of Notre Dame of Maryland, by Frank Swift Chase.

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Davey Tree Surgeons are local to you!

IF YOU live between Boston and Kansas City or in California, Davey Tree Surgeons are near you. While the Davey Company has all the advantage of a large national business, and its experts are always subject to strict organization discipline, yet they actually operate in a local sense. Several squads of these experts live within a short distance of you and serve Davey clients there regularly. They do not come to you from some far off place.

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Twenty-two thousand people have been served by Davey Tree Surgeons—nearly four thousand of them in 1923. The business of the Davey Company amounted to nearly one million dollars last year. Seventy-five percent of these clients paid less than two hundred dollars each. Whether you have one tree or a thousand trees needing attention, this reliable, expert service is available to you at a standard, reasonable charge.

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Davey Tree Surgeons will give you more service per dollar than you can buy from any unskilled or half-trained men—and their work is done right. They are diligent workers—all carefully selected, thoroughly trained, and properly disciplined. You run no risk and take no chance when you engage them—but be sure you get real Davey men.

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THE DAVEY TREE EXPERT CO., Inc., 62 City Bank Bldg., Kent, Ohio

Branch offices with telephone connections: New York, Astor Trust Bldg., Fifth Ave. and 42nd St.; Boston, Massachusetts Trust Bldg.; Philadelphia, Land Title Bldg.; Baltimore, American Bldg.; Pittsburgh, 331 Fourth Ave.; Buffalo, 110 Franklin St.; Cleveland, Hippodrome Bldg.; Detroit, General Motors Bldg.; Cincinnati, Mercantile Library Bldg.; Chicago, Westminster Bldg.; St. Louis, Arcade Bldg.; Kansas City, Scarritt Bldg.; San Francisco, Hobart Bldg.; Montreal, 252 Laugauchitere, West.

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Father of Tree Surgery

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Every real Davey Tree Surgeon is in the employ of The Davey Tree Expert Co., Inc., and the public is cautioned against those falsely representing themselves. An agreement made with the Davey Company and not with an individual is certain evidence of genuineness. Protect yourself from impostors. If anyone solicits the care of your trees who is not directly in our employ, and claims to be a Davey man, write headquarters for his record. Save yourself from loss and your trees from harm

MICHELL'S GIANT FLOWERING GLADIOLI

A collection embracing the six finest newer varieties:

Mrs. Frank Pendleton—Salmon pink, maroon blotched—rivals the richest orchid.
Herada—Immense blooms of mauve, deeper shade in throat.
Yellow Hammer—Gorgeous yellow, extra large.
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Willie Wigman—Blush white, crimson blotch.

SPECIAL OFFER

One bulb of the above six varieties, POSTPAID **75c**

MICHELL'S SEED BOOK

illustrates in colors these gladioli. This book includes the best offers in Flower and Vegetable Seeds. Bulbs and Plants.

A helpful garden guide—with 192 pages of complete, accurate descriptions, and many illustrations and color plates. Includes every proved aid for the flower and vegetable garden, dependable fertilizers, insect destroyers, garden, farm and greenhouse tools and implements and poultry supplies, etc. WRITE for it TO-DAY—a post card will do.

Headquarters for GRASS SEED Golf greens' committees, and those who have lawn problems will find our 30 years grass seed specializing enables us to render valuable assistance.

HENRY F. MICHELL CO.

520 Market St. Philadelphia, Pa.

Planet Jr.

Look for "Planet Jr."

For "nice" hoeing

THE minute you lay hands on a Planet Jr. Double-Wheel Hoe, you'll itch to get out with it into the garden after those weeds. It is a stiff implement, nicely balanced, responsive to your slightest touch. It is just the thing for running astraddle the row.

With the patent hoes or cultivator teeth set just close enough, you can neatly edge out close-lying weeds without disturbing your plants.

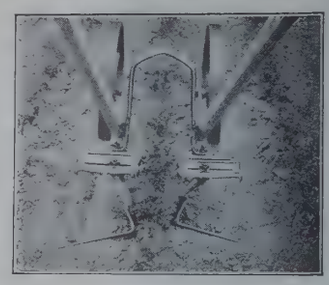
Row after row you can hoe with this great tool, and when you are through you'll find mighty few weeds left to clean up by hand. The high arch clears growing crops up to 21 inches high. After that it works equally well between the rows.

S. L. Allen & Co., Inc.

Largest Manufacturers of Specialized Field and Garden Tools in the World

Department 32

5th and Glenwood Avenue Philadelphia



First hoeing with Planet Jr. No. 12 double-wheel hoe and six-inch hoes.

No outfit for gardens of any size is complete without a Planet Jr. double-wheel hoe. Ask your dealer to show you the planet Jr. No. 12. Ask him or write us for new catalogue.

A Bird Bath of GALLOWAY POTTERY

WILL make a delightful spot in your garden, bringing the birds with their merry notes. Our collection of high fired Terra Cottas includes Vases and shapely Jars, Flower Pots, Boxes, Fonts, Sun Dials, Gazing Globes, Benches and other pieces that will add interest to your garden, sunroom and home.

A catalogue illustrating 300 numbers will be sent upon receipt of 20 cents in stamps.

GALLOWAY TERRA-COTTA COMPANY
3214 WALNUT STREET, PHILADELPHIA.

To Enjoy Perpetual Spring—

—plan the location and erection of your under-glass garden now. In the Spring is the time to build your greenhouse and to propagate your plants, so that when Winter comes, your favorite flowers will be blooming safe from killing frosts.

Callahan Greenhouses

are factory built in completely finished units. Even the hardware is attached. They are more simple to erect than a garage—and less expensive. If you have never heard the story of Callahan standardization, it will be a revelation of simplicity to you. Don't let the precious months slip away.

Write to-day for The Greenhouse Book—it will give you full details. In pictures and type it describes the various sizes and styles and shows you how easy it is to realize your fondest dreams of a perpetual tropical garden. A postal will do.

THE T. J. CALLAHAN CO.
304 Stout Street **Dayton, Ohio**

See our Greenhouse at the National Flower Show, Cleveland, Mar. 29-April 6

Vistas—

Judge for yourself which *is* the more important—the flowers and shrubs *or* the LAWN that furnishes the setting! On estates and in gardens everywhere the owners' greatest pride is well-kept Lawns and fortunate indeed is the man who has the help of

THE GENUINE

"PHILADELPHIA"

(Trade Mark Registered) **LAWN MOWERS**

Since 1869 we have made Mowers for particular people. Besides three styles of *Motor* Mowers, we offer four styles of *Horse* Mowers and eighteen styles *Hand* Machines, all differing slightly in design, size, and usefulness but *not in* merit. **A *"PHILADELPHIA"*** Mower is always the highest grade mower made—backed by an unqualified guarantee.

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Get our descriptive booklet. Progressive dealers the world over offer ***"PHILADELPHIA"*** Mowers. Special circulars on *Motor* mowers. Please write TO-DAY and mention this publication.

The Philadelphia Lawn Mower Co.

***31st and Chestnut Sts.*, Philadelphia, Pa.**

The Original People in the Lawn Mower Business

Look for *LOTOL*

on Your Dealer's Counter:

LUCKY indeed, is the gardener who has among other garden requisites, a well-stocked shelf of insecticides! And twice lucky is he who counts among them Lotol—the greatest weapon yet devised to fight Aphis or Plant Lice.

LOTOL Kills Plant Lice

This complete, concentrated contact insecticide in jelly form rids the garden of all those soft-bodied vampire insects that suck the plants' life blood. Just squeeze a teaspoonful of Lotol into a gallon of water—No Fuss—No Muss—and your spray solution is ready to dispose of the 300 odd species of Aphis or Plant Lice.

Look for This Lotol Display in Your Horticultural Supply Store

Insist on the convenient Lotol tube. Write for free folder giving further facts. If your dealer does not carry Lotol, send 45c for a tube—enough for 6 gallons of inexpensive, yet highly effective spray.

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Sole Manufacturers of LOTOL and MELROSINE
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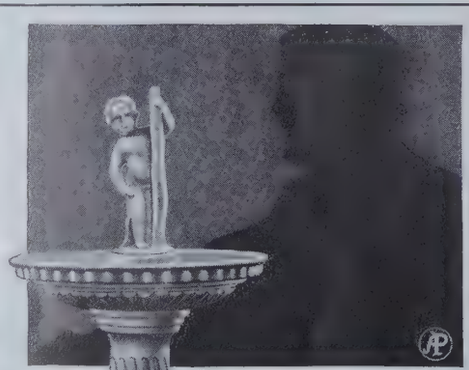

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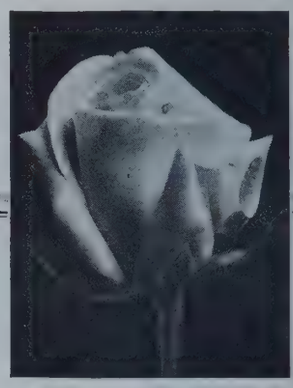

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The Originator of The Ruffled and the Laciniated Gladioli

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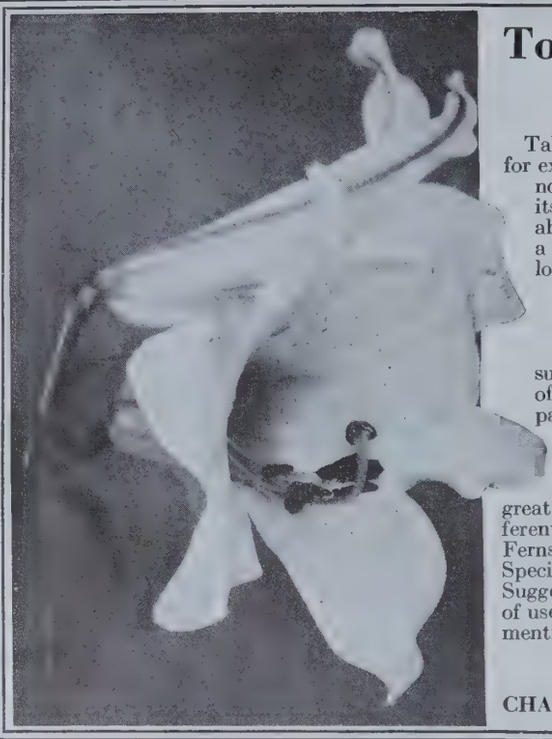

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To find more friends for hardy Lilies, we will supply 1 dozen bulbs ready to bloom, 2 each of 6 varieties of our selection, for $5.00, postpaid. The 2 Regal Lilies we propose to include are worth $1.50 alone.

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From Markham's "The Man With the Hoe."

FOR untold ages, mankind tilled the soil by brute strength—his own or that of domesticated animals. It remained for the youngest nation—America—to break away from the hoe and put it on wheels; to perfect the plow, the reaper and binder. And yet again America triumphs, for from employing brute strength it has risen to use intelligence, making the mind the means to guide.

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17

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Beauty of appearance is combined with strong, durable, sanitary construction. Patented V-Bar construction—acknowledged as the best. Scientific, efficient heating system insures even temperature on coldest nights. Perfect ventilation.

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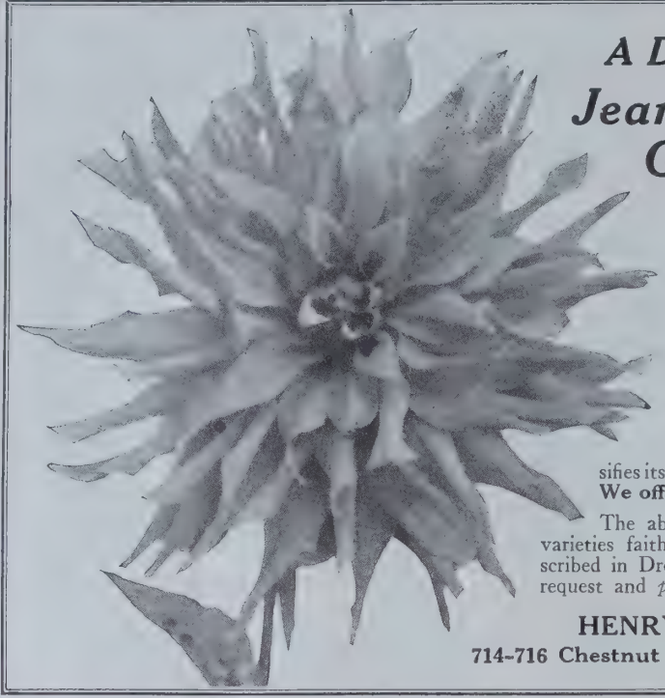

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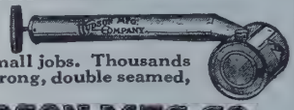

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It is a beautiful ground cover, producing a green and bronze-red, moss-like carpet, 6 inches thick. Tuck it under foundation plantings at the edge, along the border of a path, or in the rock garden.

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All are sturdy, vigorous, big rooted plants. Well worthwhile at list prices and especially attractive values under these collection offers.

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Suitable for lawn specimens or to frame a flower garden.

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Of these five varieties. Will make a charming foundation planting or shrub border.

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Using the Shaker to distribute Shaker Fertilizer in the garden seed drills.

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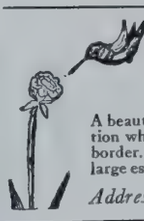

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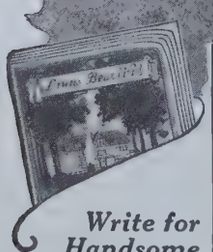

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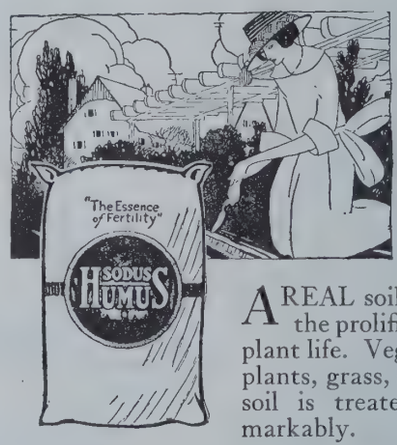

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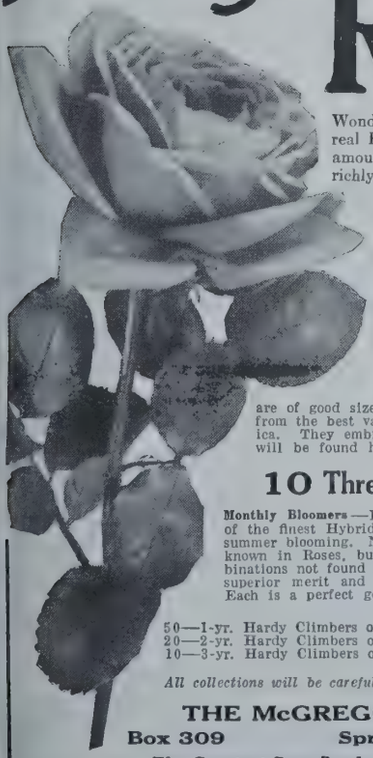

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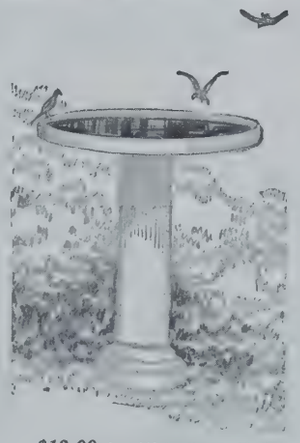

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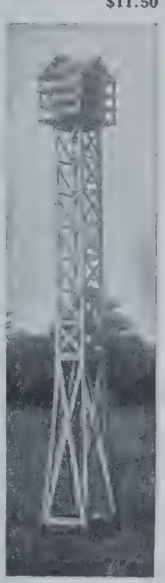

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2 Hardy Chrysanthemums	$ .50
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All for $3.50 Delivered	$4.30

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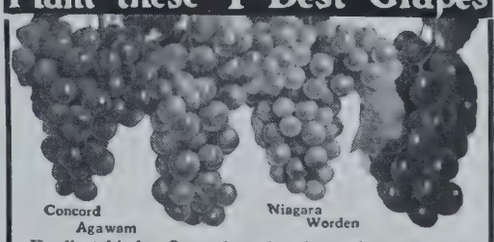

Hardiest kinds. Once planted and growing you won't part with them for ten times their cost.

Agawam Large amber-red berries on big bunches. Very sweet. Each 20c; 12, $1 75; 100, $12.
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Strong, well-rooted vines. Set of four best varieties ONLY 65c

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Seven Days in the White House with President Coolidge

Read French Strother's impressions
of the President "on the Job"
in the April issue of

THE WORLD'S WORK

French Strother, associate editor of The World's Work, has just had the unusual privilege of seven days of intensive study of Mr. Coolidge under exceptionally favorable circumstances. These include personal conversations with the President; observation at close range of his habits of work during the day; an evening as only guest at the White House; a round-trip on the President's train from Washington to New York and presence at the Lincoln Day banquet at the Waldorf-Astoria when he made his first full-length political speech since he became Chief Executive; and conversation with some of his intimate friends, all of his secretaries, and some of the press correspondents who have questioned him on public affairs twice every week since he has held his present office. From the vantage point of this intimate contact, Mr. Strother has written a most vivid and fascinating article that brings the President *closer* to you than any previous character sketch.

Portraits of President and Mrs. Coolidge
in FULL COLOR reproduced from the
original paintings by Howard Chandler Christy

Also in the April issue—

Labor's Blow to Caste in Britain.....*by Sir Philip Gibbs*
Public Men and Big Business.....*by Mark Sullivan*
Partnership, Not Paternalism.....*by Samuel M. Vauclain*
Have Women Got What They Want?.....*by Clemence Dane*
Insuring Domestic Tranquillity.....*by William McAndrew*
The Crimes of Coal.....*by Carl C. Dickey*
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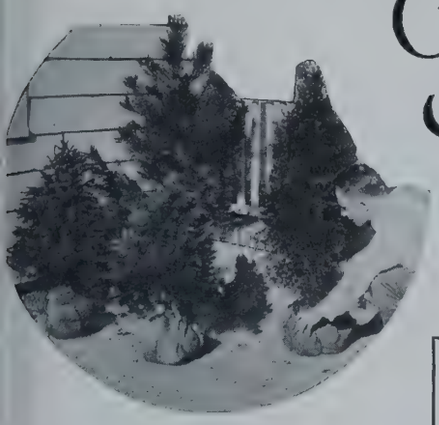

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1 Austrian Pine	3½′ to 4 ′ tall
1 Arborvitae	2½′ to 3 ′ tall
1 Douglas Fir	2 ′ to 2½′ tall
1 White Spruce	1½′ to 2 ′ tall

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THIS wonderful collection of evergreens illustrated above, was designed especially to help you decorate your Home Grounds. Each plant is a "gem," a "specimen," chosen for vigor, beautiful color, and fine shape—a truly remarkable value for Ten Dollars. You may plant this group at your front doorstep, at the path entrance, or on the lawn—in fact wherever you need evergreen beauty.

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The Spirit of the Garden

By Martha Brookes Hutcheson

Member of American Association of Landscape Architects
With an introduction by ERNEST PEIXOTTO

Mrs. Samuel Sloan, *President of the Garden Clubs of America,* writes of this new book:—

"I consider it a very valuable addition to garden literature, and it will be an inspiration to many. I am so happy that in this book Mrs. Hutcheson brings to the minds and to the hearts of the American public the necessity for more sentiment, more mystery, and more atmosphere in the garden,—something sadly lacking in this country. Her illustrations also are charming, and most fitting."

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It is packed with the most practical examples and instructions. *Illustrated, $1.75.*

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Garden Fragrance

Nature wisely decreed that your garden is not for the eye alone and has provided that from the time when you impatiently wait for the last snows of winter to trickle away till the killing frosts of late autumn come, that you may enjoy that most elusive of all charms—fragrance.

Below, we are offering you a collection of delightfully fragrant flowers. These are not single purpose flowers as each kind is pleasing to the eye as well. Some are old favorites and others may be new to you. All are kinds we like and we know you will like them, too.

12 plants Cheiranthus Allioni (Siberian Wallflower)	$1.50
6 clumps Convallaria majalis (Lily of the Valley)	3.00
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6 plants Hemerocallis flava (Lemon Lily)	1.25
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6 plants Valeriana officinalis (Valerian)	1.00
	$11.00

We will send you this entire collection for $10.00, or you may order any part of it at the prices listed

Would you like our catalogue? It is not so elaborate as many, but we do have the very best varieties of Perennials, Bulbs, Shrubs, Vines, Roses, Evergreens, Shade Trees, Fruit Trees, Berry Plants, and Garden Roots. We will be glad to send you a copy.

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Chintzes for the Porch

GARDEN MAGAZINE

VOL. XXXIX No 3

Doubleday, Page & Company, Garden City, New York *Boston :: Los Angeles :: Chicago*

WHITESHOWERS For Your Garden

Description and Prices

A WHITESHOWERS Garden Watering Outfit will give your garden a soil-soaking, life bringing shower without packing the soil or beating down the most tender plants.

It consists of four, 4 foot sections that assemble easily with Jiffy Couplings—each section fitted with Long Throw nozzles that scientifically break up the water. The outfit is supported on three spear-like rods that push into the ground.

A handle at the head of the line can be turned to direct the water either side of the pipe. It will water one garden row or COVER A SPACE FIFTY FEET WIDE.

Can be attached to end of hose. It is light and flexible, easy to set up or take down.

Finished attractively in rust-proof aluminum enamel—comes knock-down, boxed complete like a croquet set.

WHITESHOWERS For Your Lawn

Description and Price

The WHITESHOWERS Lawn outfit consists of two, 4 foot sections with Jiffy Coupling for easy assembling and equipped with special Scotch-mist two-way lawn nozzles.

It is fitted with permanent skids to move about the lawn easily. Cover an area ten by twenty feet without moving. 200 square feet thoroughly watered at one time.

Regularity of watering keeps lawns ship-shape. No more tedious and unsatisfactory hose-holding when you have this WHITESHOWERS Lawn outfit. Nothing to stick or get out of order. Will last a life time.

Finished in aluminum enamel, knock-down and boxed complete. It makes a good appearance on any lawn and does a workmanlike job of watering.

ATTENTION DEALERS

For Dealers who specialize in Garden and Lawn accessories we have a most attractive proposition on WHITESHOWERS Garden and Lawn outfits. Send for it.

WHITESHOWERS

A Real Way — A Better Way To Water Your Garden and Lawn

MANY a flower and vegetable garden started in a burst of enthusiasm in the Spring—slowly burns out and fails because of lack of water.

Every home lover likes to have plenty of flowers, and most everyone would like to have real home-grown vegetables—but most everyone is too busy to stand guard over their garden for hours every day, sprinkling with ordinary hose.

But now you can have flower gardens full of flowers, and vegetable gardens full of vegetables, with a WHITESHOWERS Garden outfit to water everything.

WHITESHOWERS water systematically and scientifically with little attention—you just fasten to a hose end and turn on the water.

Each WHITESHOWERS outfit is designed and built on the same principles as watering systems used by market gardens, greenhouses and large estates everywhere. It is now possible to have this practical equipment at modest prices for average gardens and lawns.

The President of this Company has been in the irrigation business the past thirteen years and WHITESHOWERS watering equipment is the result of this long experience.

WHITESHOWERS Keep Lawns Green All Summer

Sprinkling a lawn with an ordinary hose is like riding on a merry-go-round. You do not get any place and neither does your lawn.

Burned out, spotty lawns are common in summer, but no one was ever proud of a dead lawn.

Just occasional moving of the WHITESHOWERS Lawn Outfit does the work. No one has to watch it or hold it.

It operates automatically and waters with a misty dew-like spray.

WHITESHOWERS For Estates

For larger Gardens, Lawns and Estates we have larger equipment for permanent installation. We make these two outfits for the average Garden and Lawn—and we make equipment to properly water acres.

Combination Offer

The WHITESHOWERS Garden Outfit boxed complete costs so little as $12. f. o. b. Detroit. The WHITESHOWERS Lawn Outfit is $8. f. o. b. Detroit. As a special inducement to garden and home lovers we will make A COMBINED PRICE OF $17.50 f. o. b. DETROIT FOR THE TWO OUTFITS.

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Sold on *absolute money back guarantee* if not fully satisfactory after 30 days' use.

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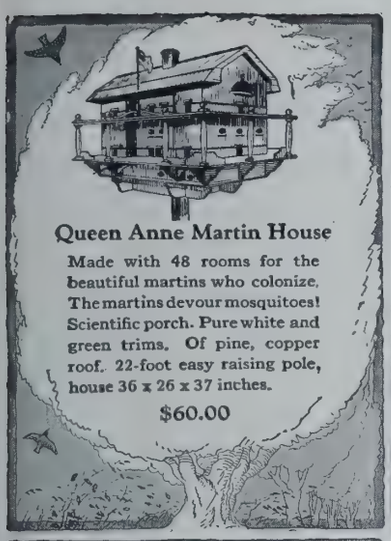
Entered as second-class matter at Garden City, N. Y., under the Act of Congress, March 3, 1879.



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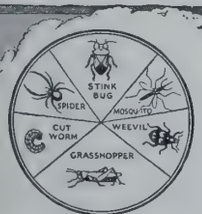

See what the birds eat!

Government research has disclosed the song birds' value to America. See here one bird's daily diet! Just attract the songbirds to your grounds! Dodson Famous Sparrow Trap removes the harmful English Sparrow. 36 x 18 x 12 in. $8.00

FORTY YEARS LOVING STUDY OF THE BIRDS

Dodson Bird Houses

What! no bird houses about your grounds?

PUT them up this season, friends, or your fine place may look as desolate as handsome walls devoid of pictures. Truly, Dodson Bird Houses have become fashionable. But why?

These quaint signs of hospitality attract the beautiful songsters. So artistic are the Dodson Bird Houses, that one is apt to overlook the scientific details which Mr. Dodson has perfected after years of study. Not so the birds! They approve them season after season, building their homes, raising successive broods of little songsters

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Send us your order straight from this page. The houses come promptly all carefully crated, ready to put up. Order NOW—don't put it off

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With copper roof

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Bluebird House

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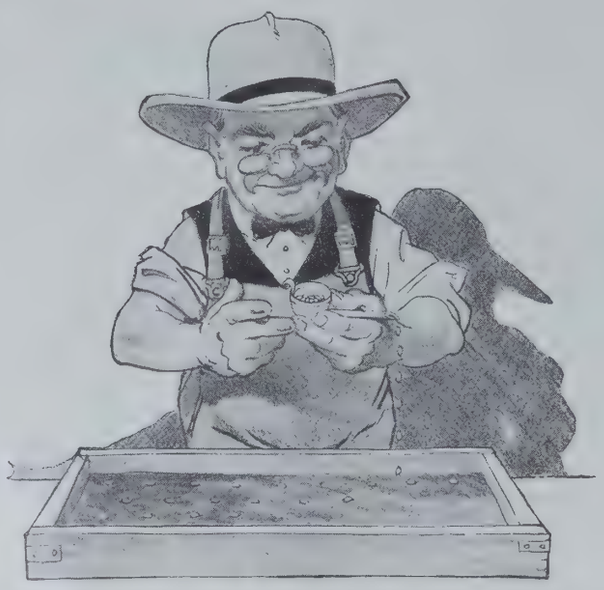
Send for Mr. Dodson's fascinating booklet—"Your Bird Friends and How to Win Them." Forty years' loving study of the birds has completed it. Things you should know about the work of the song birds!



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At the bottom of the seed-holder is a pear-shaped opening regulated by a spring, exposing an opening corresponding in size to that of the seed to be sown.

The Seed-Sower is held in the left hand with the feeder-tube extending over the back of the hand. A light tapping with the second finger of the right hand on the end of the second finger of the left gently impels the seeds through the tube in regular order (see illustration).

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PERENNIALS are always dependable for flowers in the garden and as cut flowers for indoor decoration. In endless variety of form, color and fragrance, their flowers are borne in gorgeous profusion, from early Spring to Autumn frost. Each year they come up of themselves, with an ever increasing luxuriance of flowers and foliage.

Think of your enjoyment in their cheerful companionship in your own garden. There is so much sentiment and charm in bouquets you yourself have picked, whether for your own pleasure or as gifts for friends.

Plant Your Perennial Garden Now

We have a Special Offer of a 20 foot Perennial border (with planting plan) for $14.90. It will bring you the pleasures of an Old-fashioned Garden at a most reasonable cost. Order direct from this advertisement or ask for our complete Catalogue G, from which you can make your own selections if you prefer.

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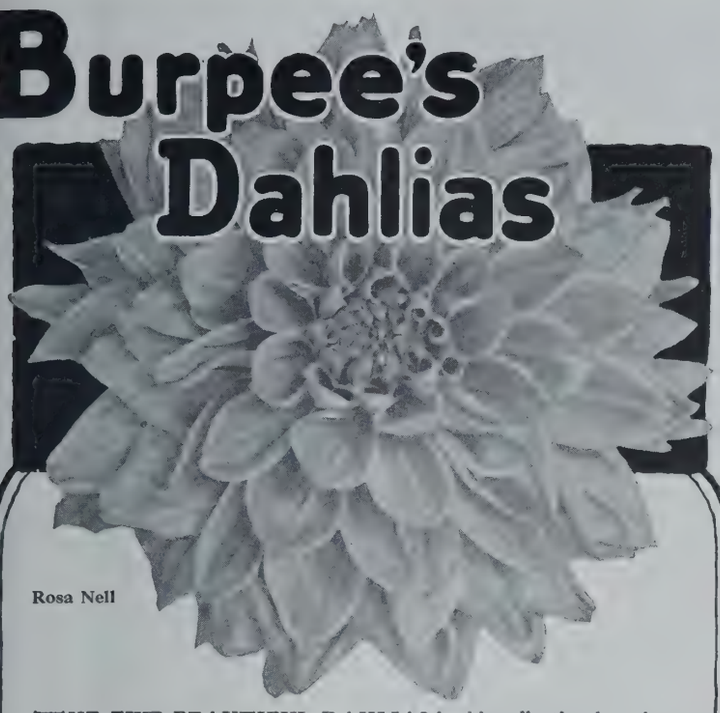

Rosa Nell

THE FIVE BEAUTIFUL DAHLIAS in this collection have been chosen by us for *Garden Magazine* readers who wish to plant a limited number of varieties in a wide range of harmonizing colors.

John Wanamaker A pleasing soft orchid-pink.
Patrick O'Mara Beautiful orange-buff shaded rose-pink.
Nialide Substantial flowers of scarlet-lake suffused carmine.
Rosa Nell Clear bright rose. Exceptionally fine.
Mrs. J. Harrison Dick Bright yellow flushed light pink.

One Strong Division each of the Five Varieties (Value $7.00), for $5.00 postpaid.

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C. acaule—is also called Lady's Slipper or Mocassin Flower. Single, large, rose-purple flower. *Each 25c; 10 for $2.00.*

C. pubescens—the large yellow Lady's Slipper illustrated alongside. Loves shade. *Each 25c; 10 for $2.00.*

C. spectabile—the largest and showiest of the type bearing one to two rose-purple to almost white flowers. *Each 35c; 10 for $3.00.*

SPECIAL OFFERS: I shall be glad to supply 10 each of acaule and pubescens, with 5 of spectabile, 25 in all for $5.00. Three plants each of three sorts above for $2.00.

My free catalogue offers many other lovely native hardy plants. Please ask for it.

EDWARD GILLETT
Fern and Flower Farm
3 Main Street Southwick, Mass.

"That Spot of Yellow Down the Aisle"

LIKE the rest of things mundane the International Flower Show has come and gone, leaving comparatively few outstanding impressions. Mingling with the crowds, my associates and I heard many comments. And among them, none occurred more frequently than "Just look at that spot of yellow down the aisle." "That spot of yellow" referred to the Rose Souvenir de Claudius Pernet in the Totty exhibit. First introduced by us now three years ago, I predict that within the next few years it will cause all other *near* yellow roses to become obsolete.

Charles H. Totty

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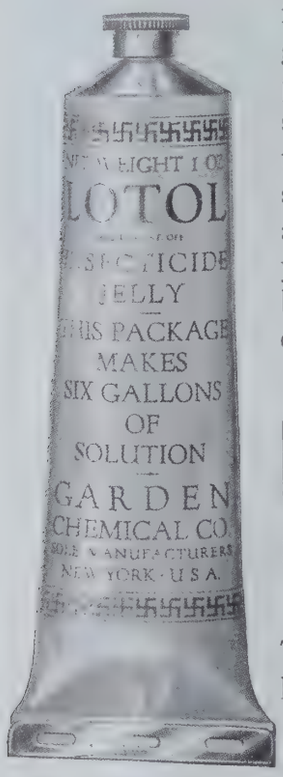

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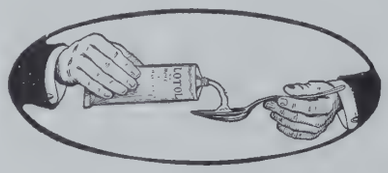

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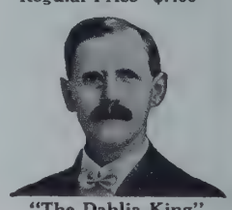

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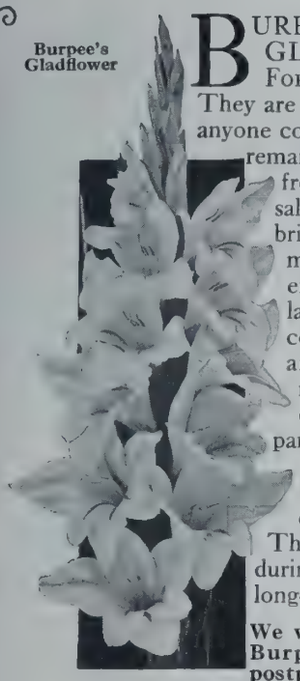

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ZANDBERGEN BROS., *"Tulipdom"*

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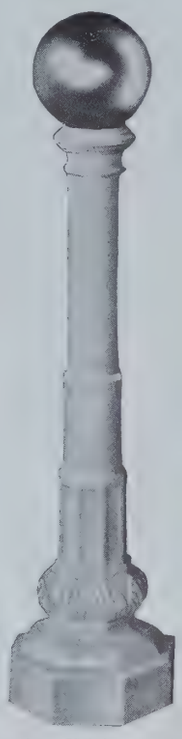

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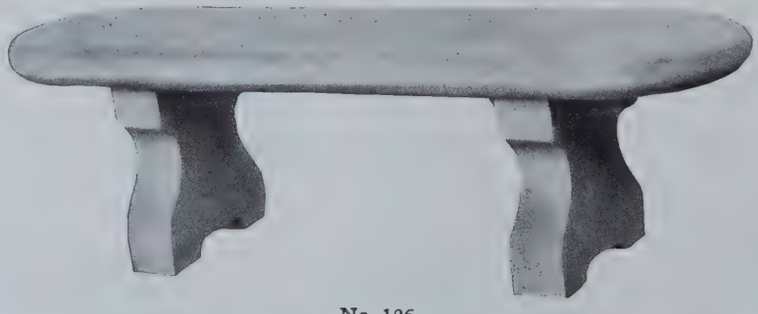

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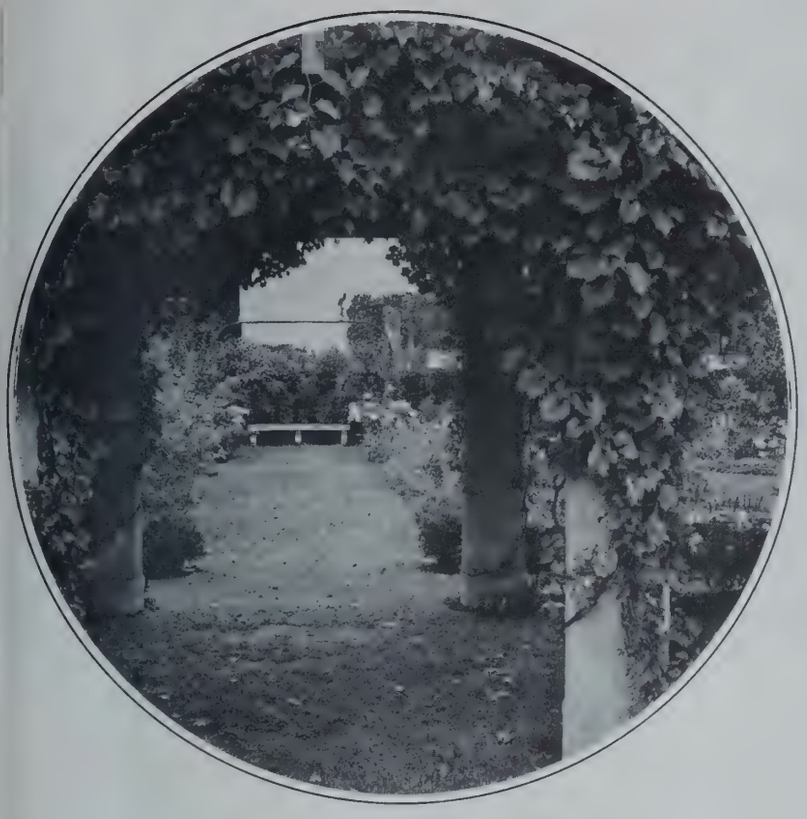

A MINNESOTA GARDEN

Where the dark, lustrous leaves of the hardy Beta Grape throw a thick cool veil of shade, thus solving the problem of a bold-foliaged climber for the severer climates

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THE GARDEN MAGAZINE

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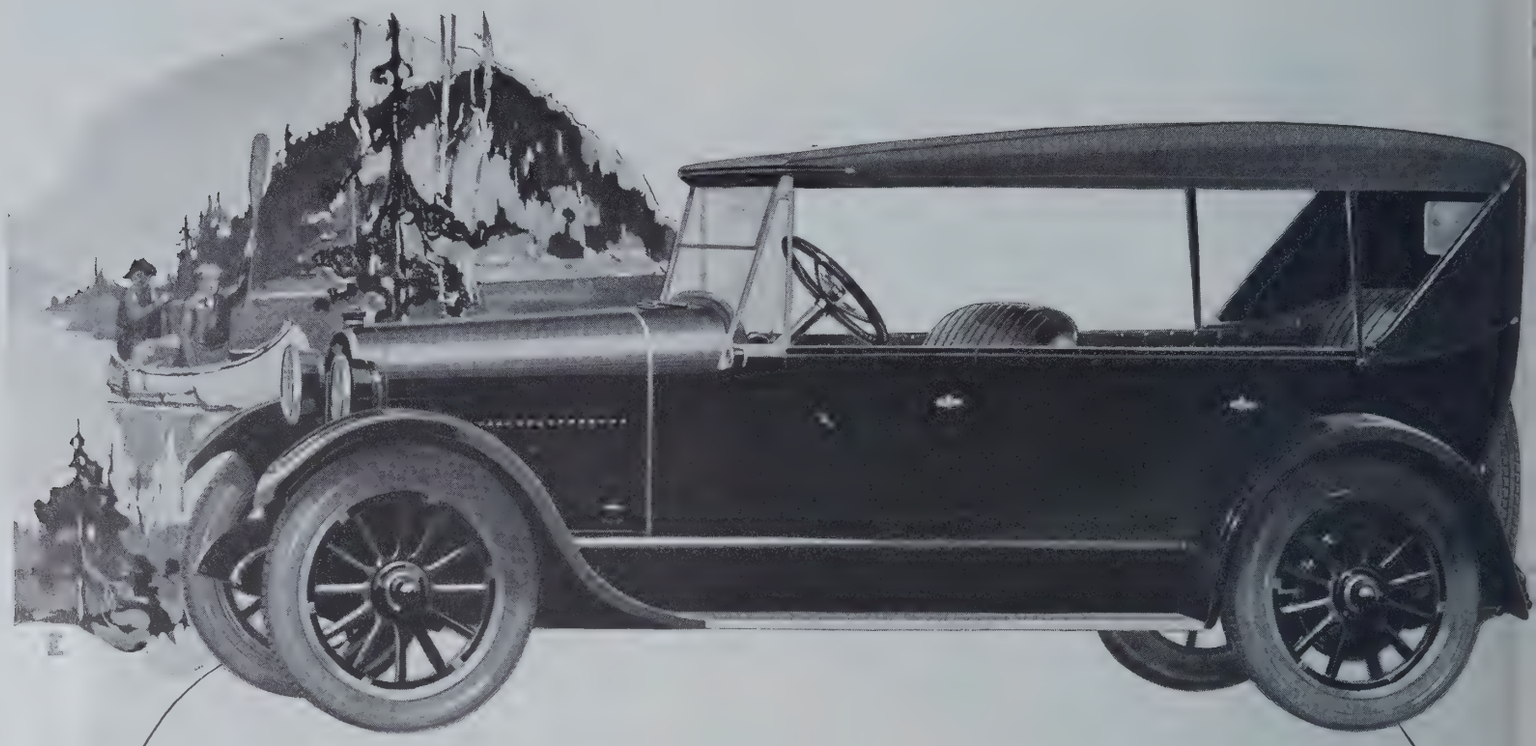

High-Powered Reo "Sixes"

The Standard Touring Reo, illustrated, is one of the high-powered Reo "Sixes."

It is mounted on the Reo double-framed chassis, and powered with the famous Reo 50 h. p. six-cylinder engine.

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The Garden MAGAZINE

Vol. XXXIX, No. 3 — May, 1924

"THEY LOOK SO GAY ON THEIR SLENDER STEMS
ALL IN THEIR BRIGHT RED AND YELLOW,
MASSED WHERE THE TANGLED SHRUBBERY HEMS
THE TIDY LAWN, AND THE SUNLIGHT MELLOW
PICKS OUT THEIR COLORS LIKE WONDERFUL GEMS"
Lura Coolley Hamil

AN IOWA GARDEN

Tulips, Narcissus, Grape-hyacinths and other flowers of May run like a band of bright embroidery along the skirts of the lawn at the home of Mrs. Addison M. Parker, former President of the Des Moines Garden Club. Pearce-Robinson, Landscape Architects

Clifford Norton, Photo.

"A LOVELY PLACE OF DREAMS AND ECSTASIES,
OF COLOR TANGLED IN A VERDANT NET"
Dorothy Frances Gurney

AN INDIANA GARDEN

Iris, Columbine, Lupin, and Rugosa Roses have conquered this little ravine with their color and sweetness and make it a pleasant spot in which to linger out of the way of fresh winds and disturbing human interruptions. In the garden of Mr. Hugh McKay Landon, Indianapolis; Olmsted Brothers, Landscape Architects

Johnson & Son, Photo.

"IT SEEMS AS IF THE LAND
WERE BREATHING DEEP BENEATH THE SUN'S CARESS"
Henry Van Dyke

AN IDAHO GARDEN

Who would guess this to be natural desert land or imagine that a mere irrigation ditch could be so turned to lovely uses? Irises (Japanese and Pseudacorus) crowd along its rim, Day-lilies and Forget-me-nots bend forward as if eager to touch the quietly flowing water, White Birches sentinel the little bridge whose rails are lightly clothed with Clematis (paniculata) and Roses (Dorothy Perkins). Garden of Mrs. R. M. Davidson at Boise (see also page 212)

THE MONTH'S REMINDER—MAY

Copyright, 1924, Doubleday, Page & Company

How to Use This Guide. When referring to the time for outdoor work of any sort latitude 40 at sea level (i. e. New York City) in a *normal season* is taken as standard; but at best dates can only be approximate. Roughly, the season advances or recedes fifteen miles a day. Thus Albany, which is one hundred and fifty miles from New York, would be about ten days later, and Philadelphia, which is ninety miles southwest, about a week earlier. Also allow *four* days for each degree of *latitude*, for each five degrees of *longitude*, and for each four hundred feet of *altitude*.

Details of *how to do* each item may be found in the current or back issues of The Garden Magazine—it is manifestly impossible to make each number of the magazine a complete manual of practice. References to back numbers may be looked up in the index to each completed volume (sent gratis upon request); and to further help the reader we have a "Service Department" which will be glad to cite references to any special topic, if asked for by mail, and also to send personal replies to specific questions; a stamped, addressed envelope being enclosed.

THE fresh and joyous month of May is in many ways the pleasantest of all the garden year and the whole earth seems to be in happy conspiracy to further the gardener's efforts. Already seedlings show promise and all the familiar perennials are reappearing in flowerbed and border. Even the sluggard is lured out-of-doors by warm springtime days and the zest of creating a little beauty spot of his own.

Among the Flowers

Perennials still to be shifted or thinned out to be attended to at once. Where early plants are not available from greenhouse or hotbed, all kinds may be sown in the open ground for blooming in July. Lupines, Candytuft, Calendulas, Nasturtiums, Eschscholtzias, Lavatera, etc. are better sown where they are to flower, and thinned. Others may be sown in prepared beds, and transferred as occasion requires.

Prepare a bed for sowing perennials and biennials for next season's garden.

Portulaca, Petunia, and Nicotiana are slow to germinate in open ground, hence allow plenty of time. The more hardy things may be sown early in the month; and the tender ones toward the end.

Early Asters to go outdoors as soon as possible in well prepared ground; rotted barnyard manure is best, but failing this, commercial potato fertilizer.

Lily-of-the-valley may still be planted outdoors; rather moist position with some shade suits best.

It is not too late to plant aquatics. Nymphaeas may be grown successfully in tanks, vats, or barrel ends in pools, or sunk in the ground.

Sweet-peas need well fertilized ground, plenty of moisture, and the roots kept cool by a mulch.

Bedding out may be started in earnest some time after the middle of the month, according to locality. Begin with the more hardy things and be careful to thoroughly harden-off such tender subjects as Cannas, Coleus, etc.

Prepare ground for summer flowering bulbs and tubers, of which the Gladiolus and Dahlias are the most popular; Tuberous Begonias are useful for shady beds; the Evening Star (Cooperia Drummondi) has pure white flowers; Lilies including auratum,speciosum, tigrinum, etc., and the common Day-lilies (Funkia and Hemerocallis) may be added.

Peonies will be benefited, when the buds show, by surface dressing of sheep manure, nitrate of soda, or liquid manure.

Roses will be opening leaves by the first week of the month; spray against mildew with ½ oz. sulphide of potassium to a gallon of water. When the buds form, give manure-water. Use whale-oil soap 1 lb. to 8 gallons water for aphis. Cultivate to keep down weeds and to retain soil moisture. Pansies set in the rose bed add not a little to the general appearance, but make cultivation more difficult. Rose blooms to be cut in the early morning before the sun strikes them; if put in a cool place in fresh water for a few hours before being placed in the house they will keep much better.

Achillea cut to the ground when it has finished flowering, will give a second crop of bloom late in the season.

Delphiniums to be kept staked up; remove all seed-pods, and feed frequently with liquid manure.

Iris need an abundance of water after flowering.

Refurbishing Window-box and Lawn

Window-boxes to be repaired, and new ones made and filled as soon as possible. A generous compost is essential, since a great number of plants are crowded into a limited space, and they must be well fed if they are to look their best right along. A layer of manure in the bottom of the box, with a compost of three parts good garden soil and one part manure mixed together, and a six-inch pot of bonemeal to each bushel of soil, will give the plants a good start.

Any patching of the lawns to be completed at once and don't wait too long before cutting grass. Planting of deciduous stock to be completed and evergreens moved before growth starts. Apply a good mulch after thoroughly watering late planted stock.

Late in the month spray for the elm-leaf beetle, using an arsenate.

Before the leaves expand, destroy caterpillar nests on the trees by means of a kerosene torch. After the caterpillars have hatched they must be poisoned by spraying the leaves with an arsenate.

Prune all early flowering shrubs as soon as they are through flowering.

Hydrangeas to be watered with alum water if blue flowers are required, though the effect may not develop till next year.

Small and Orchard Fruits

Many of the small fruits may yet be planted, but not with the same prospect of good crops as assured by earlier planting.

Keep hoe and cultivator constantly at work not only to check weeds but to loosen and aërate the soil.

Give the Strawberry patch an application of fertilizer, raking it in, and spread a mulch of straw or lawn clippings to keep the fruit clean.

A sharp lookout should be kept for currant worm which soon strips the leaves off the bushes. Hellebore powder applied with bellows early in the morning while the leaves are yet wet with dew is effective, or arsenates.

Spray fruit trees (1) as the buds swell, (2) when the blossoms show pink, and (3) as the last of the petals are falling. Use lime-sulphur 1-40; lead arsenate 1-20; nicotine 1 pint to 100 gallons water, for scale, codling moth, and aphis, respectively.

Mildew on Gooseberries is controlled by the sulphide of potassium.

Sow cover crops in the orchard where intercropping with vegetables or other things is not done; these to be plowed under when a good stand is obtained. If this is not practical, mulch around the trees with leaves, lawn clippings, grass weeds, previously scattering 4 or 5 lbs. of acid phosphate around each large tree as far as the spread of the branches.

For a Full Supply of Vegetables

Light and frequent cultivation of early planted crops now breaking through the soil not only prevents the weeds from getting ahead, but prevents loss of needed moisture by arresting the capillary ascent of water when it meets the layer of well worked surface soil.

Thin out young vegetable seedlings as soon as the second true leaves show. Overcrowding is detrimental.

Underground worms which attack such root crops as Beets, Radishes, etc., may be controlled by lime, soot, or tobacco dust scattered over the ground before planting, lightly raked in.

Keep the asparagus bed clear of weeds.

Cut off seed-pods of Rhubarb plants. If seeding is persistent, the roots need moving, so make a note for future use.

Get in poles for Tomatoes (or, if trellises are used, get them into place) prior to setting out the plants after all danger of killing frosts is past.

Harden off and set out late in the month Egg-plants, Peppers, Muskmelons, Watermelons, and Cucumbers. Weather and local conditions must be the guide if you do not use protectors. Seed

may now be planted in drills or hills. On light soils planting in rows on level ground is satisfactory. Rich ground is essential. Well rotted manure, pulverized sheep manure, and ground bone, are excellent supplements to good natural soil.

Lettuce to be sown every two weeks to keep up a regular supply. After the middle of the month sow the Crisp-head varieties like Iceberg and New York (see pages 116-118 April, 1922, GARDEN MAGAZINE)

String Beans to be sown regularly every two weeks. All sorts of Pole Beans may be planted now. Set the poles first, using manure and fertilizer in the hill.

Several sowings of Peas to be made during the month, making drills deeper than for the earlier sowings.

Make succession sowings of Beets and Carrots.

Endive to be sown in small quantities at frequent intervals to maintain regular supply.

Corn to be sown as soon as the ground is fit and plant successions at short intervals. Try planting one row each of an early, midseason, and late kind at one time.

Early Celery to be planted out. Seed of late Celery for winter use to be sown at once, if not already done; also Celeriac which requires a long season of growth.

Make up a seed bed outdoors and sow such Brassicas as late Cabbage, Cauliflower, Brussels Sprouts, Kale, etc.

Chicory, or French Endive, to be sown to secure roots for forcing next winter.

Sow Okra when the ground becomes really warmed.

As insect and other pests will soon become active, see that supplies of necessary spraying materials are on hand.

The Frames at Work

These will now be fully occupied with annuals and bedding plants demanding water more freely, and ample ventilation with a view to dispensing altogether with the sash before setting the occupants outdoors. As space is cleared, lightly fork over the soil and prepare to sow perennials and biennials.

Hills may be prepared and Cucumbers of the English frame type sown to occupy the frames for the rest of the summer. Melons may be used in this way too.

The young Carnation plants hardening in the frames may be planted outside. Keep well cultivated, and growths pinched, since upon the treatment they receive now depends to a great extent their success next winter.

GREENHOUSE ACTIVITIES FOR THIS SUMMER'S GARDEN AND NEXT WINTER'S BLOOM

Show Pelargoniums now coming into flower will justify all the care given them during the next few weeks. Fumigate to keep free from aphis, and keep the greenhouse cool and airy, with no direct rays of sun on the plants.

Bulbs of Achimenes started in heat late in March will now have made some growth, and two or three of the bulbs may be placed together in pans or baskets, and gradually inured to the greenhouse, where they will provide a blaze of color. Light shading is necessary.

Begonias, Gloxinias, and other flowering plants grown in the greenhouse, to be well fed; Cyclamen and Primulas may be placed in coldframes and slightly shaded.

For September Melons

Melons for a midseason crop to be started now. They will produce a crop in about 14 weeks (September); any of the English forcing types may be used.

The rose benches to be cleaned out and painted with hot whitewash before any replanting is done. If the plants are to be carried over another year, dry off gradually, in order to rest them; but do not overdo it, or they make take a permanent rest.

Adiantums in large pots that were rested during the winter will now have a dense crop of young fronds. Any not repotted will be benefited by weak doses of liquid manure once a week. A little shade will keep the frond a dark uniform color. A. Croweanum and A. cuneatum require a night temperature of 60 degrees with 70 to 75 degrees sun heat during the day. A. Farleyense requires from 65 to 70 degrees at night.

An Eye to Next Season

Next winter's supply of flowers must be thought of now. As soon as possible empty the houses of all hard-wooded plants such as Azaleas, Genistas, Acacias, Bougainvilleas, etc., plunging them outdoors to ripen their wood.

Gardenias should be planted early. Clean benches and a rich, porous soil and good drainage are necessary. Syringe well every day after planting, to ward off insect pests and mealy bugs. A night temperature of 70 degrees suits.

Stocks for winter flowering to be sown now. Princess Alice, and Beauty of Nice are good types. Grow cool.

Chrysanthemums for exhibition to be kept growing without a check. A good soil is turfy loam, with one-third well rotted cow manure and a sprinkling of bonemeal. Do not over water, and attend to tying, staking, pinching, and keeping the plants free from aphis.

Bouvardias may be planted out in loamy soil, and pinched back three or four times during the summer to make husky plants for lifting in the fall.

Snapdragons for winter flowering to be started.

The flowering season of Amaryllis being past, the plants may be placed in frames, and plunged up to the rims. Give weak liquid manure once a week at first and twice later on; syringe every fine day, and see that they are not in need of water. Any attention given now while making their growth will be repaid when the next flowering season comes.

Plants of Winter-flowering Begonias need attention before they become pot-bound. Give a light compost made up of a good deal of flaky leafmold, good loam, screened cow manure, and sand, and a temperature of 60 to 62 degrees at night.

What the Orchids Want

Calanthes may be started into growth in flats of sand. Pot the bulbs when the roots are quite short. Pot firmly and water sparingly until the roots get into the soil. Another useful terrestrial Orchid is Phaius grandiflorus, which will soon be in flower. It needs a temperature of 60 degrees at night, a good water supply, and weak cow manure to strengthen the flower spikes.

Odontoglossums are now in the height of their season. The plants need full sun some time longer to redden up their leaves, thus making them tough to withstand the heat of summer. All enjoy more water at the roots now.

A temperature of 55 degrees at night is ample for them. A light spraying on bright days is beneficial. Protect the flower spikes from snails by wrapping cotton wool around the base of the spikes.

RAINBOWS OF JUNE

IRIS time in gardens little and big! A chance to enjoy, to compare, to dream and plan for next year's loveliness enthusiastically companioned by *Agnes Fales Huntington* whose sprightly and understanding comment on IRISES FOR EVERYBODY comes in the June number. Seasonably, too, A COLOR PORTRAIT OF IRIS MORNING SPLENDOR appears on the cover.

Since the garden now has its "pocket full of posies" to be shared with the house, *Estelle H. Riess'* timely word on THE DECORATIVE USE OF FLOWERS will be read with profit. Which flowers are "color flowers" and which are "form flowers"? Should they be used in mass or singly? Questions often asked; and here succinctly answered.

FLOWERS IN ITALIAN GARDENS—Narcissus and Pinks, Peonies and Fritillary, Roses, Acacia, and other bloom for centuries shone among the sombre greenery which we of today commonly—and erroneously, so *Herbert W. Faulkner* contests in his interesting article scheduled for June—consider the true Italian garden. Do you know, too, that Padua had its Botanic Garden way back in 1525?

Summer fruits ripen swiftly and swiftly pass their prime—how to keep them sweet and delectable for next winter's enjoyment is given in a very practical group of recipes under the caption of THE HOUSEWIFE AND HER GARDEN by *Ruth Gipson Plowhead.*

SUCCESSFUL GARDENING IN THE NORTH CENTRAL REGION

W. T. COWPERTHWAITE
Landscape Architect

Interpreting the Climate and Selecting the Plant Material that Fits —Some Surprising Revelations About Temperatures and Rainfall

IT WAS no fault of the climate that failure followed the early attempts at gardening in this region. The older inhabitants of the North Central States easily remember the time when the outlook on both ornamental and economic horticulture appeared hopeless. The pioneers had tried to follow such accepted standards and plants as they had known in their homes in East and South, had met only failure, and it came generally to be thought that nothing very worth while would ever be done here.

The region specifically dealt with in this article is indicated by the stippled area above and includes six states—Wisconsin, Minnesota, Iowa, Nebraska, and the two Dakotas. Many of Mr. Cowperthwaite's conclusions have, of course, a wider applicability

Now, happily, we have the proof that this North Central section (from Des Moines, Iowa, north to Canada and from Lake Michigan westward to the Missouri) is really well-adapted to gardening if suitable plant varieties are used with proper cultural methods.

To meet the Northwest conditions a new horticulture had to be developed slowly and through experiment, for there were no beaten paths to follow. Success came, however, when gradually such varieties as the Patten Greening and Wealthy Apples, the Beta Grape, the Latham Raspberry, the Hansen Plums, the Zumbra Cherries and other dependable hardy strains of plants were developed. These are now bringing great profit and enjoyment to Northern planters.

In the ornamentals the situation was somewhat different, for it did not prove necessary to develop new varieties, but rather to select, from the older known sorts, those that would withstand the climatic conditions. It took years, however, to test out these and to determine which sorts were and which were not suited. Actual trial alone could solve the problem.

Climatic Conditions of Violent Variability

THERE are certain conditions peculiar to this area, making it different from other sections of the country, which may be considered as controlling factors. Temperature variation is not the whole explanation although that is probably the main single element. Visitors from New England always express surprise on missing some familiar home plant, saying that it gets just as cold in their locality; and references to the United States Government Weather Bureau records bear out their statement. The mean average annual temperature of St. Paul, Minnesota, is 44°, while that of Portland, Maine, a point practically at the same latitude, is 45.4°. St. Paul has a mean average annual rainfall of 27.94 inches as against a rainfall of 42.51 inches for Portland. With about the same average temperature, the Eastern city appears to have the advantage of 15 inches more rainfall per year which is an amount that in itself equals the entire year's rainfall in parts of the Dakotas.

A comparison of the St. Paul weather reports with those from points in other sections will show even greater divergences. New York City has a mean average annual rainfall of 44.63 inches, which is more than one and one-half times that of St. Paul! The average annual temperature of New York City is 51.7°. Going South we find Philadelphia has a slightly warmer temperature of 53.6°, with an average annual rainfall of 41.17 inches. In St. Louis the temperature is averaged for the year at 55.8°, with 37.20 inches of rainfall, which is considerably less than that along the Atlantic Coast. These figures, while only superficial indices, suggest some of the reasons why certain plants do well in one locality but not in another.

The great annual range of temperature in the North Central States is another significant factor. During our short hot spells in August, the mercury may occasionally register 100°; and there are times in mid-winter when it may fall to 30° or 35° below zero. These temperature changes are often quite sudden and are especially noticeable in the spring when there are many days of alternate thawing and freezing. The winter's frost enters the ground very deeply and in early spring we frequently have warm sunshine and balmy breezes which thaw out the surface and encourage the leaf and blossom buds to break while the plant's roots are still frozen solid. When a day or two of these untimely warmer temperatures is followed by a severe freeze, any premature budding is blasted.

Many plants that blossom early do not take favorably to these rapid temperature changes and either grow very poorly, or perish. This freezing and thawing action is naturally a very severe strain on shallow-rooted perennials for the "heaving" breaks root connections and may lift out the small plants bodily. Unfortunately, and strangely contrary to the ideas of our Southern neighbors, we do not always have a heavy protecting blanket of snow throughout the winter. When the snowfall is abundant and lasting, the winter loss, especially of the small plants, is greatly lessened.

General Types of Native Vegetation

THE character and disposition of native vegetation in this North Central region gives the planter a general basis on which to build in making up his planting lists. Roughly, this section can be divided into three fairly distinct belts, beginning at the north along Lake Superior and going south: (1) the Evergreen Forests; (2) the Deciduous Forests; (3) the Prairies. Each belt has its characteristic plants, only a few of which seem equally at home in all three areas.

Region No. 1. The northern region, extending south to approximately half-way between Duluth and St. Paul (about latitude 46), is largely given over to evergreen growth. The section is continuous with a like character of plant life in Ontario to the north and Northern Wisconsin and upper Michigan on the east. The outstanding trees are the three native Pines known as the Jack, White, and Red or Norway. White Spruce and Balsam Fir crown the hills and uplands; while Black Spruce, Tamarack, and Arborvitae fringe the swamps. The deciduous trees are either minor or only temporary factors in the vegetation of this region. The quite characteristic shrub growth is of Thimbleberry (Rubus parviflorus), Mountain Maple, Sweet Fern, Dwarf Birch, High-bush Cranberry, and several sorts of Honeysuckle. Here there are also several of

the Heath family—Arbutus, Wintergreen, Blueberry, and Huckleberry—that are not found, nor will they grow, south of the evergreen lines.

Region No. 2. From the valley of the Red River in the north, extending southeastwardly toward southern Wisconsin are the deciduous forests. In the northern portion, the hardier trees, such as Basswood, Elm, Hard Maple, and Red Oak predominate. As one goes southeastward, the Black Oak, Shellbark Hickory, and Black Walnut are noticed in addition to those trees mentioned as predominating in the north. In the sour subsoils of the south section of this belt are native White Oak forests with Scarlet Oak, Pin Oak, and Burr Oak stands on the drier and less fertile hillsides. Practically no conifers are in this strip. Among native shrubs are the Dogwood (such species as Cornus amomum and paniculata), the Sumacs, Thorn-apples, Black Haw (Viburnum lentago), Wolf-berries, Rosa blanda, and the common Hazel.

Region No. 3. The prairies form the southern and western boundaries of the region. Tree growth is quite scattered, but is abundant along the river valleys and in groves about the numerous lakes. The most common are the Cottonwood, Box-elder, and White Elm. The Burr Oak is the only representative of its genus found in the prairies, and often growing so stunted and dwarfed as to be only a bush. The Amorpha, Rosa blanda, Rosa arkansana, and the Hazel are characteristic native prairie shrubs, with Buffalo Berry (Shepherdia argentea) very prominent in the western area.

To Plant in Spring or Fall?

FOR any plant of which the hardiness may be in question here in the north, spring planting is the only safe rule; and further, all tree and shrub plantings can be done in the spring with assurance of success. The limiting dates for this vary, of course, but, in the vicinity of St. Paul, the ground is usually in good, workable condition for planting about April 15th, and planting continues normally until late May. The period between April 20th and June 1st has been found very satisfactory for planting evergreens. The spring planting season of either deciduous or evergreen stock has a duration therefore of about 35 days. The spring planting is also especially preferred for the perennials as a class except for a very few kinds of early spring-blooming sorts, such as Peonies and Iris. Its duration is about the same as for the shrubs.

The fall is also a busy period, even though spring is more favored for extensive plantings. So much can be done from early October until the ground freezes in the way of preparing beds and making ready for spring operations, that the planter finds his time well occupied. With the normal autumn rainfall it is perfectly safe to move any of the hardier trees and shrubs—possibly an amount equal to one third of the usual spring planting work being thus attended to. It is a commercial practice to plant quite generally in the fall, provision being made for proper mulching and winter attention.

In lawn making, the best period for sowing seed is unquestionably between August 15th and September 15th, which allows the young grass to get well established before winter sets in.

One might sum up this matter as follows: If in doubt, plant in spring, but by all means take advantage of a moist, favorable fall to establish the hardier trees and shrubs.

The prolonged cold weather and drying winds of our winters make a heavy demand upon the moisture content of both soil and plant. In some instances this drying may be so severe as to cause a collapse of the cell fabric and consequent destruction of the plant. Therefore, much good results from

GARDEN OF MR. E. N. SAUNDERS, ST. PAUL, MINNESOTA

Tartarian Honeysuckle, Vanhoutte Spiraea, the Common Snowball, Japan Barberry, variegated Dogwood, Basswood, Bolleana Poplar, and Weir Maple, are skilfully blended in this garden picture. Holm & Olson, Landscape Architects

SHRUBBERIES THAT LEND AN AIR OF WELCOME

Mockorange (Philadelphus Lemoinei), Japan Barberry, and Vanhoutte Spiraea give sufficient all-season diversity and yet dispose themselves into an amicable unity of effect. Home of Mr. E. N. Saunders, St. Paul (Minn.); Holm & Olson, Landscape Architects

giving *all* plantings a thorough and heavy soaking with water just before the ground freezes in the fall, so that they enter into the winter conditions with plenty of moisture about the roots. Mulching of trees, shrubs, and perennials—especially all newly made plantings—is also a decidedly essential practise. This mulch should be of some porous, non-packing material which will allow the air to enter as well as to hold the snow. Corn stalks and hay or straw have proven excellent for perennial beds. Strawy manure is fine for the shrub bed and for spreading beneath shade trees and hedges. Put the mulch on after the ground is frozen in the fall and remove as growth starts in the spring, not before.

The more tender shrubs are also helped to winter over successfully if cultivation and watering is stopped in September. This discourages late, sappy growth which may not be sufficiently mature when freezing weather comes to stand the cold. Choice specimens of semi-tender shrubs are frequently wrapped with straw or even boxed to get them safely through the winter. The fruit grower has learned that sun-scald often proves disastrous to his young orchard and arranges to protect the tree trunks from the south sun. This may be done through shading the trunk with flat boards or by wrapping with burlap. Smooth-barked shade trees such as Mountain Ash, Basswood, and Silver Maple should also be given this protection against the sun. Serious damage often results in late winter through the thawing of the bark on the side exposed to the warm southern sun during the day and the freezing again at night when the temperature falls.

HARDY ORNAMENTAL PLANTS FOR LANDSCAPE USE IN NORTHERN GARDENS

These lists are offered as general suggestions, being neither complete nor exhaustive. They comprise the more commonly used plants which have proven satisfactory under Northern conditions

1. DECIDUOUS TREES

(A) Large-growing Kinds for Shade on Lawn or Boulevard. (No special reference is given as to desirability, the list being based more on hardiness and general use):

Ash: American White, Green—Basswood—American Linden—Black Walnut—Butternut—Elm: American White—Hackberry—Maple: Sugar or Hard, Norway, Silver, Ash-leaved—Oak: Pin, Scarlet, Carolina, Balsam—Willows—Wild Black Cherry (Prunus serotina)

(B) For Lawn Specimens and Ornamental Landscape Plantings:

Birch: European White, Cut-leaf Weeping, Yellow, Paper—Flowering Crab: Bechtels, Parkman, Soulard—Horse-chestnut, and Ohio Buckeye—Larch: American, European—Locust: Black—Maple: Tartarian, Wier Cut-leaf—Mountain Ash: American, European—Mulberry: Red (native of southeast Minnesota)—Poplar: Bolleana, Lombardy—Thorn-apple: native species such as Crataegus mollis, macracantha, tomentosa—Willow: Laurel-leaved, Golden, Wisconsin Weeping, Niobe

(C) Fall Foliage Coloration:

Ash: American White—Birch: Yellow, Sweet, White—Oak: Scarlet, Red, Pin—Maple: Sugar, Tartarian, Silver

(D) Suited to Light and Sandy Soil:

Birch—Bird-cherry—Locust—Maple: Tartarian, Ash-leaved—Oak: Scarlet—Poplar: White

II. SHRUBS

(A) Tall-growing Kinds for Screening and Background Planting:

Buckthorn—Elder: Red-berried—Euonymus atropurpureus (Wahoo)—Honeysuckle (Lonicera tatarica)—Lilac: Old-fashioned purple and white, Japan Tree, villosa—Mockorange (Philadelphus coronarius)—Ninebark (Physocarpus)—Russian Olive—Siberian Pea-tree (Caragana)—Snowball (Viburnum opulus sterile)—Sumac: Staghorn, Smooth-bark—Viburnum: lentago, opulus, dentatum

(B) Medium Height for Fillers and for Positions Next the House:

Cotoneaster: acutifolia—Coral-berry (Symphoricarpos vulgaris)—Currant: Yellow-flowering—Dogwood: Siberian (Cornus alba), Red Osier, Silky—Honeysuckle: Morrows—Hydrangea: Snowball, Panicle—Indigo-bush (Amorpha)—Mockorange: Lemoinei variety—Snowberry—Spiraea: Vanhouttei, Plume (sorbifolia), Garland (arguta), Billard—Rugosa Rose

(C) Low-growing for Facing or Border Planting:

Barberry: Thunberg—Cinquefoil (Potentilla)—Mountain Currant (Ribes alpinum)—Spiraea: Anthony Waterer, callosa, Thunbergi—Peonies (often used as dwarf shrub forms)

(D) For Dry, Sandy Soil:

Cinquefoil (Potentilla)—Indigo Bush (Amorpha)—Rosa: hardy types such as blanda, arkansana, Woodsi—Russian Olive—Sand-cherry (Prunus pumila)—Siberian Pea-tree—Sumac: Staghorn, Smooth-bark, Fragrant

(E) With Brilliant Fall Coloration:

Cotoneaster—Dogwood: Siberian—Japan Barberry—Strawberry Bush (Euonymus)—Sumac—Viburnum: lentago, opulus—Currant: Yellow-flowering

(F) Ornamental Fruiting:

Barberry—Buckthorn—Chokeberry (Aronia)—Coral-berry—Cotoneaster—Dogwood: Siberian, Red Osier—Elder: Red-berry, American—Flowering Crab (Malus floribunda), Soulard—Honeysuckle: Tartarian, Morrow, Matrimony Vine—Rosa: all wild species—Russian Olive—Sand-cherry (Prunus pumila)—Snowberry—Strawberry—Strawberry-bush—Thorn-apple: Natives, such as Crataegus mollis and rotundifolia; also Cockspur Thorn (Crataegus crus-galli)—Viburnum: lentago, opulus—Currant: Yellow-flowering.

(G) Desirable Tender Shrubs. (Often used in the vicinity of St. Paul, but lacking in hardiness; should be planted only in protected places and have winter covering):

Deutzia: Slender, Pride of Rochester—Flowering Almond (Amygdalus communis)—Fringe-tree (Chionanthus)—Golden-bell (Forsythia)—Hercules-club (Aralia chinensis)—Jet-bead (Rhodotypos kerrioides)—Pepper-bush (Clethra alnifolia)—Spiraea prunifolia—Tamarix—Weigela

III. HEDGE PLANTS

(A) Deciduous:

Barberry—Buckthorn—Cotoneaster—Honeysuckle—Lilac—Mountain Currant—Rugosa Rose—Russian Olive—Siberian Pea-tree—Spiraea: Vanhouttei

(B) Evergreen Hedge Plants:

American Arborvitae—Pine: White, Scotch—Spruce: White, Black Hills

IV. VINES

(A) For Flower Effects:

Clematis: Sweet Autumn (paniculata), Jackman, and other horticultural varieties—Honeysuckle: Scarlet Trumpet—Roses (only where given winter covering)—Wisteria (for specially protected places)

(B) For Foliage Uses on Arbors, Fences, and Verandas:

Bittersweet—Dutchmans-pipe—Ivy: Engelmann—Grape: Beta, and native species—Moon-seed (Menispermum canadense)—Virginia Creeper

V. EVERGREENS

(A) Dwarf Kinds Suited for Foreground and Foundation Plantings:

Globe Arborvitae—Juniper: Common (communis), Savin—Mugho Pine

(B) Large Tree Forms:

American Arborvitae—Cedar: Red, Blue—Fir: Balsam—Pine: White, Austrian, Scotch, Red (resinosa)—Spruce: Norway, White, Black Hills, Colorado Blue (including Koster's variety), Douglas

VI. PERENNIALS

Generally satisfactory:

Achillea; Aconitum; Anchusa; Anthemis; Aquilegia; Aster (Michaelmas Daisy); Astilbe; Boltonia; Chrysanthemum (Alaska Daisy); Coreopsis; Delphinium; Dielytra; Funkia; Gaillardia; Gypsophila; Hemerocallis; German Iris; Monarda; Papaver; Peonies; Phlox, Platycodon; Pyrethrum; Sedum

VII. ROSES

Native bush species such as blanda, arkansana and acicularis.

Rugosa forms, both the type and the named varieties.

Hybrid-perpetuals, Hybrid-teas, and Climbers should be used only when given winter covering. The June-blooming Roses are the safest of the large-flowering sorts to plant, as hardiness seems to vary inversely with the length of the blooming period.

VIII. PLANTS THAT HAVE PROVEN UNSATISFACTORY

Some of the more popular garden ornamental plants that are favorites in the milder climates to the south and east and which are entirely unsuited to northern conditions:

Akebia quinata—Althea (Rose of Sharon)—Azalea—Beech—Boxwood—Cornelian Cherry (Cornus mas)—Dogwood: Flowering (Cornus florida)—Globe-flower (Kerria)—Honeysuckle: Hall's—Holly-grape (Mahonia)—Japanese Maple—Magnolia—Mountain Laurel (Kalmia)—Pearl-bush (Exochorda)—Privet—Redbud (Cercis canadensis)—Rhododendron—Roses: Tea and grafted tree forms—Silver-bell (Halesia)

SPRING GARDEN SONG

LOUISE DRISCOLL

THE incredible time of the year is here,
When intricate, clean green leaves appear.
And the tide of spring comes hurrying,
And song is a daily, constant thing.
After the silence and the cold
And threat of winds that harry and scold,
The swords of the grass triumphantly
Are stabbing the earth to ecstasy.

Triangle tulips, red and gold,
Their thin, transparent cups unfold;
The plum tree catches a wave with spray,
And the sunny side of my hill is gay
With periwinkle, as though blue eyes
Laughed through the tangled growth that lies
Where new growth touches the old to find
Dead leaves that winter has left behind.

Come with me to the orchard where
The peach, the cherry and the pear
Are weaving nets to catch the bees.
Worship with me by the apple trees,
And praise the good, brown earth that spills
Treasures of crocus and daffodils!
Thank God for gardens where we know
The pointed hyacinth will grow.

Now for the miracle time of the year
And the gifts of God as they appear,
Given in beauty lavishly,
Bloodroot under a wide beech tree,
Frond of fern and winter rye
Sharp green under a cobalt sky,
For sheltered fields and open ways,
This is my song of love and praise!

Emerging from an entrancing wilderness, one is now and then surprised by nooks of formal beauty as here where Petunias throw abundant masses of soft color

In a Michigan Garden

The Summer Home of Mr. and Mrs. Claude C. Hopkins on Spring Lake

Photographs by Rene and Harold Hopkins

There is no monotony in this garden of many acres which has room for the naturalistic as well as the more ordered types of planting. Ferns in rustic boxes give the hidden handrails of the bridge, curving over a little ravine, a delightful and, at first, puzzling verdancy; the approach to the lake is made by a terraced path (shown at right) of formal plan

FLOWER GARDENING IN THE HEART OF AMERICA

ETHEL GREENOUGH HOLMES

Missouri Barren Land Literally Made to Blossom with the Rose—Discounting Droughts and Gophers, Cyclones and Bobtailed Mice

AS A field for flower gardening, the heart of America would perhaps not be selected by any one with an intimate knowledge of its climate, swept as it is by gales from the great plains and too often treated to a shortage of moisture during long periods of the year (not to mention possible blizzards or cyclones); and yet here was I set down to live! And all my life I had wanted a garden with never a chance before of anything more promising than a window-box to grow it in!

I cannot say that I met with much encouragement when I started out upon this project. The first persons of whom I inquired as to the possibility of having a garden said very firmly: "Nothing can live through the summer! You can have a spring garden, but nothing can live through the summer!" Being entirely ignorant on the subject I had to believe them, and make up my mind to be content with a spring garden. But when the fall came along I found that I was not alone in my ignorance, for quite a number of things had lived through the summer and bloomed late into the fall!

ROSES ON THE TERRACE OF A MISSOURI HOME

"One should garden with a thankful heart for all favors received and a firm belief that there are as good flowers in gardens as smile at one from the covers of catalogues," says Mrs. Holmes who long ago translated her belief into actuality as this flourishing greenery at her Kansas City (Mo.) doorstep amply bears witness

The next person with whom I talked said rather hesitatingly: "Why, yes, there are quite a number of things that will grow all the year, my aunt has had a garden for years." My heart gave a great bound at that and I decided that if she could have a garden, I, too, would have a garden.

The first year we were in our new house we raked, harrowed, and sowed the front lawn, and I dug a modest bed opposite the east porch in which with great excitement I sowed a "mixed bouquet" packet, thinking that some of it would surely come up. And every few days I took a hopeful look at the drying soil and our newly budding shrubs. It seemed to me that it did not rain as often as it should, so pretty soon we began dragging the hose around. And it never rained, and it never rained, and it never rained from mid-May till August! Day after day large fluffly white clouds would appear to arouse our hopes only to be dispersed or consumed by continuous hot winds which blew day and night with unabated determination.

One of my neighbors set out a row of Geraniums and when she saw them battered and pulled day after day she said to me; "When I look at those Geraniums I can just hear them shriek at me, 'You darned fool, what did you plant us out here for'!" And it was very, very hot and painfully dry; and it seemed as if the moon shone in our eyes all night, and the sun never went down till long after any sun I had ever been accustomed to knowing.

AND yet several flowers grew. Petunias, uncared for in a corner bed, bloomed and bloomed, a mass of brilliant pink. I never since have had such fine Mignonette as flourished on one plant in the "mixed garden," and a small, furry gray Sunflower appeared, about three feet high, that I thought very charming. In fact, other strange flowers that I have never seen before or since also appeared in the "mixed garden."

Perhaps the less said about the lawn the better. Stray horses loved to roll in its soft dust, cows stood on it, moles burrowed under it and the principal crop was Pigweed, Wild Lettuce and a rich trimming of Foxtail. All the most enthusiastic gardeners admitted it was not what they would call a good gardening year; but then I had never known any other, and I enjoyed my five flowers and was not at all discouraged, imagining it was probably my inexperience that failed to produce a richer harvest.

The next year I thought it would be so pretty to have a nice neat hedge of those furry Sunflowers between me and my neighbor, so I saved the seed and planted a long row. They grew all right that season, ranging from eight to eleven feet in height and broad in proportion. Everything grew, it was warm and muggy, regular greenhouse temperature, produced by frequent thunderstorms that swept down upon our new green infants and laid them low; and when they came up again, along came a new troop of elephants. They bloomed but they were not exactly as tidy as one could wish with a picture of New England gardens in the back of one's head, but I was simply delighted with every floweret.

One of the interesting phases of gardening out here is our inability to prognosticate the height or width of any given variety. If we have a warm wet spring, things grow like the proverbial Bean of Jack; if we have a cold, dry spring, nothing appears until it becomes so hot they may be cooked to a crisp. Sometimes it rains by night and steams by day until green mold forms on open pasture land; and again the lawn will develop cracks till it looks as if it were going to fall through to somewhere, one is not quite sure where.

NOR was it only the climatic difficulties that I had to struggle heartily with; we were visited by the most numerous and novel fauna, new at least to me. There were two horses who knew no ties strong enough to restrain their fondness for coming and putting the most enormous feet into any small patch of green that I might have planted, no matter how isolated or

minute; they never loped down our newly sodded terrace that they did not go next and step in the new Lettuce bed. Cows came by day or night and ate our vegetables till we organized a series of alarms and the neighborhood would turn out to drive them away. Moles burrowed under everything that we watered. The more moles that came, the more one had to water; and the more one watered, the more moles came. A year later I learned that moles are as prolific as guinea pigs, and that almost made me give up gardening; but not quite! The pocket gopher was new to me. He suddenly begins building little mountains of newly dug earth in the middle of your lawn. He usually does one every day and where he gets the earth you cannot see, for it will not go back into the hole again. We finally trapped him. I don't know whether I had better tell about the bob-tailed mice and the skunk we caught in the rat trap; nor will I mention rabbits, ground squirrels or chipmunks. No! You might think I am exaggerating, but I am not, and all this took place on less than an acre.

CLIMBING ROSE TAUSENDSCHON

Lustily clambering upward season after season with a prodigal display of cherry-pink bloom, this Rose was set out in its present situation in 1911 after having been forced for Easter bloom; at the home of Mrs. Massey Holmes, Kansas City, Missouri

Yes, we had some difficulties to overcome, and I have sometimes thought that if I were a flower I would resent being asked to grow in some of the seasons here. But when they get their roots well down in the richness of our soil, and their thirst is slaked, and the sun shines, they feel such an urge from below that they cannot resist pushing upward into the glowing sunshine and bursting into floods of blooms; at least a great many of them cannot. And some years they bloom no matter whether we pay attention to them or not—I gardened four years before I had such a season, but we do have them.

And so now after a decade of gardening I have learned that just as very rarely all the wheat and all the fruit is ruined (the newspapers to the contrary) so, generally speaking—cyclones, floods, and droughts not counting—there are very few seasons that do not average up in the long run and when some flowers cannot be counted on to come through smiling.

When I look at the growth of the climbing Roses at the seashore, and think of our second story shoots yearly; and when I consider our delightfully early start and our late fall blooms; not to mention our lack of rose bugs, hollyhock rust, and some other difficulties that I find exist in Eastern gardens—then I feel that the "heart of America" is not really such a bad place to garden.

One gardening district has one set of difficulties, another another. I have yet to see the garden that has taken Topsy as an example. One should garden with a thankful heart for all favors received and a firm belief that there *are* as good flowers in gardens as smile at one from the beautiful colored covers of the catalogues.

LILIES IN A KANSAS GARDEN

VIOLA McCOLM

"YOU must see Mrs. Pierce's Regal Lily and the Peruvian Daffodils (Ismene)! They are in bloom now."

So the friend I was visiting in Topeka took me to this garden in a back yard of two lots. Here, although three fruit trees of good size and some lawn occupy considerable space, Mrs. Pierce has shepherded a beautiful array of bulbs and hardy plants; among them, fifty varieties of German Iris, besides several kinds of Japanese and Siberian.

It was late in June when the early perennials and German Iris had finished blooming. The Lilium regale, however, was in its prime, the bulb having been set out in December of the year before. The first season it made little growth, but in the following spring (1923) it threw up three strong stems, bearing one bud, three buds, and five buds respectively. I was fortunate enough to see the latter stalk with its full number.

There are twenty-three varieties of Lilies in Mrs. Pierce's garden, all fall-planted. "Yes, I should know a good deal about Lilies. I have been growing them ever since I was eight years old and I am not a young woman now," she remarked. "The Regal Lily bulb was set between six and ten inches deep. I find the best method of handling Lily bulbs is to put at least two inches of coarse sand underneath, then to fill in around each bulb with a mixture of sand and thoroughly rotted manure. And a Lily bed should never be allowed to suffer for water. I find partial shade to be best for the Regal Lily. The topic assigned me in the Flower Lover's Club is the Lily, and the club is planning for a show of Tulips and other spring flowers to be held in Topeka early next May (1924)."

Mrs. Pierce then discussed the Peruvian Daffodils which were just commencing to bloom. These large fragrant white flowers, upheld on a three-foot stem, are of the Amaryllis family; easily cultivated; and the bulbs multiply rapidly. As soon as ground is warm enough for Corn to grow, the Ismene bulbs may be planted. For successive flowering it is well to plant at intervals of two or three weeks until the middle of June. The top of the bulb should be at a depth of two or three inches. Each may send up several flower stalks—one Peruvian Daffodil in Mrs. Pierce's garden sent up five.

CHOOSING CHINTZES FOR SUN-ROOM AND VERANDA

AMY RICHARDS COLTON

Decorator and author of "Pottery That Plays a Part in Garden and Loggia," "Decorative Ironwork," and other articles

Gay Flower Patterns of Ancient Lineage that Carry the Message of Summer —Selecting Color Schemes to Blend with Both Dwelling and Garden

FLOWERS and birds, as everyone knows, form the principal motives of most chintzes and printed linens, which in itself seems an excellent reason why these materials serve so well in furnishing verandas and sun-rooms. They strike at once a gay and cheerful note, at the same time making a link with the living bloom in the garden beyond, or supplying the lack of it when the outer world is snowbound and the glass enclosed sun-room remains the only substitute for the open view of the flowering summer garden.

One thinks of some of the fine modern chintzes as being expensive, but when one compares their prices—$190 for the quilt of a bed—in the 17th Century, our latter day prices seem modest enough.

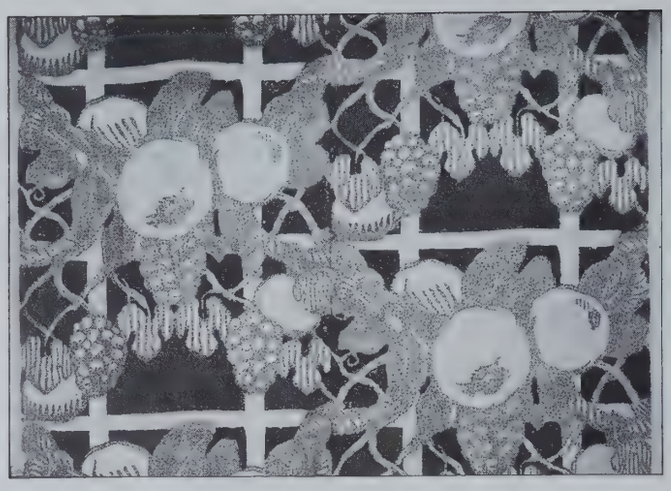
The ancestors of our modern chintzes—first painted on cotton, later painted or printed on cotton or linen—lead us back into very ancient days. There are historical records of the use of them from many astonishingly early sources. Herodotus, 450 B. C., refers to cottons with patterns, and the elder Pliny in the first century A. D. gives us in his "Natural History" a detailed description of both printing and dyeing with the use of mordants.

The Peruvians seem to have had printed or painted cottons before the Spanish Conquest in 1533, and there is a reference in Isaiah to some patterned cottons as well as the famous Joseph's coat in earlier Biblical history. There are also early records of printed cottons, or those treated with wax (batik) or tied and dyed to form patterns, in Japan, China, Korea, Persia, and the East Indies, as well as Egypt and the nearer Eastern countries. Armenia was at one time a channel through which these early patterned cotton materials passed into Europe from the East.

But above all, India, as far back as 400 B. C., seems to have been the birthplace and progenitor of our modern hand-blocked

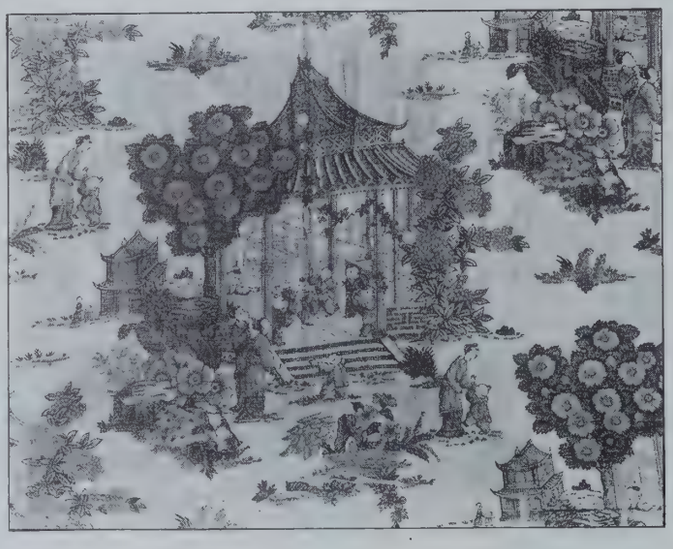
SUN-ROOM AT THE HOME OF MRS. C. LE ROY HENDRICKSON AT GARDEN CITY, L. I.

Chintz of a very good old pattern of English descent whose dominant tone is a warm pleasant yellow offset by dashes of peacock blue, orange, and sepia. The yellow is repeated in plain curtains of sheer material and a canary and goldfish lend a final vivacious touch. The floor is also delightfully patterned with tile insets of peacock, yellow, etc.; walls and woodwork of a soft neutral tint which both relieves and enhances the gay color scheme. Amy Richards Colton, Decorator; Aymar Embury II, Architect



MODERN FRUIT MOTIF

"Printed linens are developed to the highest point in France and have been since the 18th Century"; an effective *toille de Rambouillet* with red-orange fruits and white trellis against a background of rich blue (Courtesy of F. Schumacher & Co.)



AFTER THE CHINESE

An obviously Oriental and very amusing pattern in green and orange tones with dark outlines on natural linen ground (Courtesy of Proctor & Co.)

chintzes and linens. Many of the best patterns are lineal descendants of those laboriously painted by hand on the fine hand-woven India cottons, which so closely resembled linens, and were used for wearing apparel and hangings, before the adventurous Portuguese navigators introduced them into Europe in the late 15th century, by way of the Cape of Good Hope.

Soon after that time, the Dutch, closely followed by the English and French, formed East India Companies and through them a flourishing trade in Indian prints was established between India and Europe. They were first brought into England in the reigns of William and Mary, and Queen Ann, and became tremendously fashionable. In the middle of the 18th Century many Chinese motives were introduced into the designs of the prints and this became such a craze in England that it got the French name of Chinoiserie, having first become popular in France in the reign of Louis XV.

What Chintz Really Is

THE word chintz is derived from the Hindu word "chint" pronounced chints, and from the sound of that our modern word chintz is derived. There is often confusion in peoples' minds about the terms chintz, cretonne, printed linen. The facts seem to be that chintz and cretonne are both cotton materials with printed patterns, somewhat interchangeably used, but the word "chintz", derived from the Hindu word, is largely employed in England, and has been associated with the glazed and unglazed printed materials on soft fine cotton that are the direct descendants of the old India prints; whereas the word "cretonne" is derived from Creton, the name of an old French town, where certain printed cottons and linens were made. It is more in use in this country than in England and is apt to be applied to rather less choice and to heavier cottons than is the word chintz.

The most usual pattern for the original India prints, on which many changes were rung, was that of a gracefully curving tree trunk rising from a mound of earth and breaking into many branches. From these branches spring all the flowers of the Orient, and among them cluster or hang its birds, and beasts and butterflies, blended marvellously into a conventionalized design, perfectly balanced in form and color. Only a learned Hindu pundit could fully explain the meanings of many of these elaborate patterns. In addition to Hindu love of color and pattern, there was an immense amount of symbolism back of it, all too intricate to go into in the short space of this article.

The reasons why flowers, animals, and birds are so common in Persian, Indian, and Chinese designs, while they are almost wholly absent from designs of the nearer East, seems to have been more religious than climatic. There was some kind of taboo among the Semitic peoples, familiar to us all by reason of the Second Commandment, against making any representation of any living object. It had something to do with the difficulties of establishing a pure monotheism. Among the peoples farther east, on the other hand, the representation of flowers and various animals is full of symbolism, commonly religious symbolism.

REMINISCENT OF ANCIENT INDIAN AND PERSIAN PATTERNS

A galaxy of garden familiars —Poppies, Roses, Daisies, Tulips, Morning-glories, etc.—throwing bright blooms and leaves against a linen ground broken with stripes of yellow, green, and blue (Courtesy of Proctor & Co.)

"THE MILLER, HIS SON, AND THE ASS"

Delightful old *toile de Jouy* design chiefly reds and mauve against cream (Courtesy of F. Schumacher & Co.)

The earliest patterns were entirely painted by hand; when the cutting of wooden blocks was invented, at first only the outlines of the designs were printed from them, the patterns being filled in by hand in color; later, as in our day, the whole was printed by hand from wooden blocks. Even now the methods of block-printing are almost identical with those described in early Indian records and in Pliny, and there is no limit but expense to the number of colors or length of the repeat in a hand-blocked pattern. But when machine-made, the length of the repeat is gauged by the circumference of the roller the material is printed from, and twelve colors are about the limit. After the invention of printing cottons by machinery, they ceased to be a luxury. All our cheap ones to-day are machine-made, while those that have real charm and distinction are still printed by hand. In many cases the actual blocks of more than a century ago are used.

Printed linens are developed to the highest point in France and have been since the 18th Century. The famous *toiles de Jouy* were designed and printed at the town of Jouy and still are to the present time. These early French linens were influenced in design by many great painters and designers of the time and the old flowery Indian patterns often gave way to those full of human figures, gracefully and conventionally combined with landscape effects as in a Watteau picture. They were usually printed in one tone on an unbleached background. In England at this time the designs on printed cottons and linens were influenced by Adam, who had brought all sorts of classic ideas from Italy, and these with their garlands, laurel wreaths, torches, etc. drove out for the time being the more highly colored floral patterns of India. The earlier designs with direct Indian influence are far more suitable for a sun-porch or veranda than the more formal classic designs of the late 18th Century.

MODERN INTERPRETATION OF THE FAMOUS OLD CHINESE "FOUR SEASONS" MOTIF

The Lotus, Peony, Chrysanthemum, and Plum—symbolizing summer, spring, autumn, and winter respectively—long favored in the Oriental arts, here find fresh expression and some new companions. Flowers very decoratively rendered in orange, terra-cotta, yellow, and cream on a black linen ground (Courtesy of Proctor & Co.)

Patterns That Wear "Mentally" as Well as Physically

IN CHOOSING either chintzes or printed linens, one of the principal requisites is a fine pattern full of character, harmonious and well balanced in design and color. It will be found that those which are the least naturalistic in effect will *mentally* wear the best and give the most lasting pleasure. A naturalistic design gives a restless appearance to a room, and seems to be forever falling or jumping from the walls or furniture instead of peacefully or gaily forming a part of the scheme of the room.

A design to be successful must be so balanced in form and color that one is at first only aware of its harmony and charm, the details appearing as one examines it more closely. Like really delightful people, one does not discover all their charms on first acquaintance.

The old India prints were almost invariably printed on light backgrounds, but many modern ones—as well as some in the 18th and early 19th Centuries)—were made effective by developing the designs against black or colored grounds.

"TREE OF LIFE"

"The most usual pattern for the original India prints, on which many changes were rung, was that of a gracefully curving tree rising from a mound of earth and breaking into many branches. From these branches spring all the flowers of the Orient, and among them cluster or hang its birds, and beasts, and butterflies." Copy of one of these fascinating antique hand-blocked prints here shown in crimson, green, yellow, brown, with touches of blue and mauve (Courtesy of F. Schumacher & Co.)

Creating Restful Effects by Restraint

IN PLANNING to use chintz for a sun-room it is well not to overdo it. There are practically only two places it can be used: for curtains or for furniture covering. The "or" is used advisedly, for, in general, it is more effective to combine a plain material with the chintz, carrying out some dominant tone in it, preferably one that is an accent. Curtains may be of a plain color, combined with furniture covering of a figured chintz and where a large sofa is used this again may be plain, the figured material reappearing on the pillows. If there are many windows and a bare look is produced by too many plain curtains, the monotony can be broken by figured valances. Here and there a lamp shade of pleated chintz may also be introduced. If willow or rattan furniture is used, this can be brought into the scheme first suggested by the chintz, by painting or staining it to one of the darker tones in the chintz, sometimes touching it up to one of the brighter colors. When the curtains are plain they make a more restful frame to the landscape beyond, which is important in a sun-room where the windows are usually large and numerous and the view from them is often a feature of the room. There are many plain materials dyed with sun-fast colors, another advantage for curtains in a room flooded with sunshine.

There remains a third way in which another form of chintz can be introduced into a sun-room. Real India prints or their reproductions may be hung on the walls, as one would hang tapestries in a hall or more formal room. They are extremely decorative and

JUST ENOUGH COLOR TO BE RIGHT

"In planning to use chintz for a sun-room it is well not to overdo it. There are practically only two places it can be used: for curtains or for furniture covering—the 'or' is used advisedly." Very restful and livable is this cool and yet cheerful looking sun-room at Birchwood, the home of Mrs. Anson W. Burchard, Locust Valley, L. I.

are usually in good proportion to fill a large wall space. When several are hung on the walls, plain curtains, with plain or striped furniture coverings are most effective, and the patterns can be repeated in the shape of sofa pillows or lamp shades.

Into such a scheme as this could appropriately be introduced a wall fountain of colored pottery, especially designed by an artist to give an additional oriental touch. The same artist might design some hand-made tiles for flower boxes. Bamboo furniture and a tiled floor would complete an interesting and inviting room.

When Choosing Material for the Open Porch

IN FURNISHING an open veranda with chintz, the colors should be simple and vivid to be most effective and hold their own, both as a foreground to the natural colors of foliage, flowers, and sky that they generally compete with, and practically in the matter of fading. As few figured chintzes are sun-fast, one has often to turn to interesting striped or plaid effects. Many of these are derived from old bandanas, woven into heavy canvas-like materials, which are dyed with a sunfast aim in view. They give variety of color, without adding a definite artificial pattern, which might lose all effect when seen close to the larger scale of the landscape or flower garden beyond. For further variety, plain colored materials repeating one of the colorings in the plaids or stripes can be used for pillows.

In all of these descriptions it is assumed that the walls of the sun-rooms or verandas are without pattern and more or less neutral in tone. If the house be stucco, washed over with a definite color, it becomes of great importance to take this into consideration in choosing a chintz, for the whole effect of colors is easily marred by lack of relation to their background.

No mention has been made so far of the so-called modern or futuristic type of design, in which all tradition has been abandoned and abstract patterns substituted according to the individual artist's ideas of filling a given space. These designs are apt to be very striking in color and form, and in general are much more suitable for sun-rooms or verandas than any other part of a house. They may be the starting point for an extremely odd but interesting effect, but must be chosen with knowledge and discretion, not simply in order to be original. It takes more experience to carry out successfully an entire scheme based on a modern chintz than one that has a well tried history behind it.

DAHLIAS IN THE MIDDLE WEST

GEORGE WM. VEDITZ

Three Great Belts Where the Dahlia Grows Best—Colorado's Plan for an August Parade—The Lure that Lurks in Seedlings for the Section

THERE seem to be three great strips or sections of territory in which the Dahlia thrives naturally as climatic and soil conditions lend themselves to its culture —the Atlantic coast, the eastern slope of the Rocky Mountains, and the Pacific coast.

In the two intervening strips there has been more or less difficulty in growing Dahlias to the perfection that has been attained in the three regions indicated, and it is here that man must help out nature by counteracting or removing adverse factors.

Such missionary work in behalf of less favored localities has largely had its inception in Denver and Colorado Springs. In both of these cities the Dahlia has become the most popular of all flowers, scarcely a garden existing that has not several varieties. Probably the main factor in creating the popularity of the Dahlia in this region has been W. W. Wilmore, with only seven years less that half a century of Dahlia culture and more than one hundred varieties originated to his credit. It is largely from his originations that Colorado gardens have been recruited. Mr. Wilmore has been ably seconded by his associates—notably R. T. Davis, Jr., B. D. Townsend, and George W. Gero—and with their coöperation organized a movement which has resulted in the formation of the Dahlia Society of Colorado with nearly one hundred enthusiastic members. This society staged the first Dahlia Shows ever held in the Rocky Mountain country.

Heretofore the object of breeders in the mountain section has been not so much to produce varieties bearing blooms of great size as to secure charm of color and delicacy of form. The Peony-flowered variety Laura Barnes seldom exceeds eight inches in diameter, but its perfect form and its dazzling flame color and golden button suggestive of a Pike's Peak sunset, make it conspicuous in any Dahlia assemblage. There are few Cactus Dahlias preferable to Justice Bailey, with its attractive form and glowing pink shading into lilac, and more than one visitor to my garden has pronounced this the loveliest and most appealing Dahlia ever seen.

But size has had more attention from Rocky Mountain breeders during the last few years, and the apricot fawn pink Decorative Pahaska (the Indian name of Buffalo Bill) easily attains twelve inches in diameter, while its shaggy appearance adds to its attractiveness and justifies its name. The canary yellow Ruth Jacqueline bids fair to hold its own in any collection of Hybrid-cactus varieties irrespective of color, the cleft petals enhancing its attractive individuality of form.

Though Denver is the recognized center of Dahlia culture in this region, the smaller city of Colorado Springs, seventy-five miles south at the foot of Pike's Peak, is performing an extraordinary service in spreading the cult of the Dahlia.

Fully one hundred thousand tourists visit this city every year during the summer, the great majority coming from sections of the country where the Dahlia has been only indifferently successful. There are several large commercial gardens in this locality, the largest being that of Mr. C. W. Igo, who has become a skilled hybridizer and has produced a number of seedlings of merit.

Former Governor Oliver H. Shoup, whose home is in Colorado Springs, is sponsor of a movement to have an annual Dahlia Day parade toward the end of August and the effect has been to greatly stimulate interest in this flower, the Governor offering as a prize for the most attractive float a fine Van Briggle art vase. This parade devoted to the Dahlia promises to be the first of its kind in the country and is to be followed by a show in the municipal auditorium free to all comers.

THE object of the Dahlia breeder should be not only to improve on existing varieties, but also to extend the territory where the Dahlia can be grown with the same measure of success as in localities that more nearly approach the original home of the Dahlia in its climatic and soil conditions. The complaint in the Mississippi, Missouri, and Arkansas valleys has generally been that Dahlias do not thrive there, as the intermittent spells of hot, dry weather burn out the vitality of the plants, resulting in undersized, dull-colored, unattractive blooms, that frequently revert to the original small form of the flower. Such obstacles can be overcome by proper cultural procedure and with protective care Dahlias of the finest quality may be produced even in places where the summer heat dries and cracks the soil to the depth of ten inches. The plants must, however, be sheltered from excessive heat during the day by a protective shade or awning, and the soil kept cool and moist by a covering of straw, leaves, lawn-clippings, or similar light material spread several inches thick around the base of the stalks and the area of the tubers and roots.

The West is also yielding to the tendency to produce new varieties. At the last show in Denver practically every exhibit included a number of seedlings. In Colorado Springs every grower of any pretensions is trying to produce new and more attractive varieties.

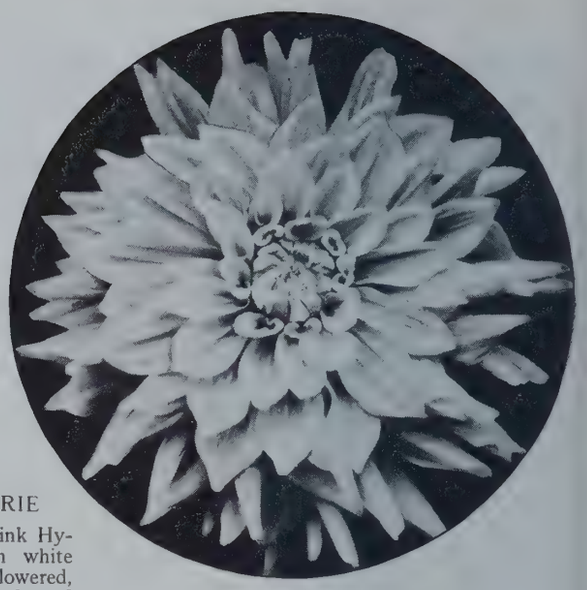
The era of the hybridizer seems to be only beginning. Within the last half dozen years varieties of all types have been produced on a larger scale than in the entire previous life of the Dahlia. This ease of propagation and these constant changes are not without their drawbacks, and they may constitute a real menace to the cult of the Dahlia, which threatens to assume a kaleidoscopic character, always interesting, always colorful, always beautiful, but never stable. One California grower announces thirty new introductions for the present year, all of them meritorious in having some quality or other to place them ahead of older varieties.

It is a fascinating game, probably the most fascinating and speculative in the entire garden year, and no one will blame those who have space and facilities for playing it to the limit, especially as there is always a gambler's chance of finding some world-beater among these Dahlia foundlings. Last year I had some fifty seedlings from 200 seeds obtained from reputable California growers, and do not exaggerate in saying that ninety per cent. of these seedlings surpassed in beauty and color any of the Dahlias in my garden fifteen or even ten years ago. It seems desirable, however, to call the tendency to produce immense size and to fix a diameter limit for each of the various types.

The production of seed is becoming one of the outstanding features of Dahlia culture. Many of our foremost hybridizers offer seeds from their finest varieties, and great is the temptation to try one's luck. Practically all the old established seedhouses list Dahlia seed, guaranteed to have been obtained by hybridizing from the foremost varieties, and these houses moreover carry fine selections of standard varieties of tubers and plants. As the possibilities of these seeds become better understood it is not at all unlikely that small garden owners will order Dahlia seed in the same manner as they buy Aster, Sweet-

ALLEGHANY MOUNTAIN

Striking combination of deep velvety carmine and pure white on outer petals, while lines of carmine run nearly to tip of inner petals; Decorative type (Geo. L. Stillman)



EMMA MARIE

A clear bright pink Hybrid-cactus with white center; large-flowered, erect of stem, and good keeping quality (Dahliadel Nurseries)

EL GRANADA

Immense Hybrid-cactus, vivid orange petals which twist and interlace showing at the tips a creamy yellow reverse; stiff stem growing well out of the foliage; flowers freely throughout the Dahlia season (Bessie Boston)

More Debutante Dahlias That Delight

Other sensations of the season were pictured on pages 218, 220, 221, of the issue of last December. The accompanying descriptions are the introducers'

MARGARET E. MILLIS

Pleasing amaranth-pink (see plate XII, Ridgway's "Color Standards") streaked with white; free bloomer bearing eight-inch flowers without forcing; Hybrid-cactus (J. K. Alexander)

PRIDE OF SAN FRANCISCO

Vigorous free-flowering Decorative; salmon-pink petals with golden base, tips of outer petals suffused soft rose (originated by McWhirter, introduced by Dreer)

FRANCIS LOBDELL

Attractive Hybrid-cactus with cluster of white petals at center surrounded by petals of clear pink shading to white at the tip (originated by Waite, introduced by Fischer & Masson)

RODMAN WANAMAKER

An extraordinarily large Peony Decorative of rich salmon with bronze and gold shadings; excellent stems and a profuse bloomer (Peacock Dahlia Farms)

pea, or Petunia seed and have their garden fun watching these germinate and grow and produce a treasure-trove of blooms.

WHITE GLORY

Pure white Decorative with blooms gracefully carried on good stems; comes into flower early and generously (C. Louis Alling)

THIS ease of propagation has had the effect that the Dahlia is the least stabilized of our four major flowers. The Peony, though it once numbered three thousand distinct named varieties, has been cut down to less than five hundred after a thorough checking and study by special committees of the American Peony Society and after a definite rating had been given each variety as the result of two symposiums by the Society in 1919 and 1921. It has become so standardized that the catalogue of any large Peony grower is practically a duplication of that of any other, the only difference being in the size or quality of the roots offered and in the prices, which are, for all that, quite uniform. There is practically no Peony grower who does not carry Le Cygne, Solange, Therese, Karl Rosenfield, Lady Alexandra Duff, Martha Bulloch or Richard Carvel; while hardly any private garden, no matter how modest, is without its Festiva Maxima, M. Jules Elie, or Baroness Schroeder. The popular Edulis Superba this year celebrates the centenary of its existence. At Peony shows the rivalry lies in exhibiting blooms of established varieties that will surpass their competitors in perfection of form and color, while new varieties are given rigid inspection and seldom hold the center of the stage as is the case with new Dahlias.

The Iris is stabilized in a lesser degree, but a rating or percentage of perfection has been given to the more popular varieties, while the Gladiolus, though as yet without a rating, has many varieties that have stood the test of time and maintain their popularity undiminished, such as Halley, America, Schwaben, Baron Joseph Hulot, and the hoary Brenchleyensis that still has many devotees.

With so many varieties coming in, it is difficult to predict those that will ultimately become the Four Hundred of Dahliadom. Even such a transcendent variety as Mrs. I de Ver Warner, which three scant seasons since was the observed of all observers is spoken of as "still" deserving a place of honor; and Geisha, a few years back the most popular of all Dahlias, is recommended for the discard by one prominent grower. Personally I intend to cling to Geisha for 'auld acquaintance' sake.

Despite the fact that it has thus taken the bit between its teeth, the Dahlia is bound to become the most popular of all our late summer flowers, to be the queen of garden queens whether located in the three favored regions or in the Middle West as unfavorable conditions are better understood and overcome.

SOME GOOD EVERGREENS THAT ARE ALSO HARDY

[*The following brief notes are based on observations made at Cleveland, Oberlin, Wooster and Gambier (central Ohio), with the exception of one or two items secured in Highland Park, Rochester, New York*]

POPULARITY of the highly colored Colorado Blue Spruces is undoubtedly on the wane. These showy trees are comparatively short-lived and in their latter stages are often thin and scraggy. For those who want the note of color supplied by such a tree, Engelmann's Spruce is suggested as being a more desirable species. Coloration of its foliage is almost equally good, while in other respects the tree is superior—longer-lived and holding its limbs more tenaciously. If one is determined to possess a Colorado Blue, however, purchase the grafted form known as Koster's Spruce to insure the highest coloring.

The various forms of Japanese Yew (Taxus cuspidata) give promise of great value and usefulness as their desirable qualities become better known. All of them will endure much drought and shade and they are not discolored by our changeable, trying winters. While they are rather slow growers and as yet relatively high in price, the Japan Yews are adaptable and long-lived—well worthy of attention by all who are interested in the finer ornamentals.

The White or Silver Fir (Abies concolor), from the mountains of Colorado, continues to be the finest large ornamental evergreen suitable for planting in the East. Bluish tints impart to its foliage beauty and charm, while the limbs are retained remarkably well to the ground. The White Fir is but a moderately fast grower and lives to a great age.

For rapid-growing windbreaks and screens the Douglas Spruce, native to the Pacific coast, promises to be quite generally cultivated in Ohio. This stately, handsome tree has now been grown here for a number of years, and each season only adds to its reputation for beauty, durability, and rapidity of growth.

Of the smaller ornamental evergreens, Juniperus Pfitzeriana is undoubtedly the most notable of recent acquisitions. Long known in arboretums and botanic gardens, it is only within the last few years that this splendid thing has been propagated on a large scale. For massing with low-growing kinds this Juniper supplies a thick growth of bluish, plume-like foliage which makes it indispensable.—W. E. Bontrager, *Oberlin College, Ohio.*

Gardeners who care for evergreens will find a reliable and illuminating guide to the choice and cultivation of these patient trees in "The Cultivated Evergreens" (Macmillan) recently published under the able editorship of Prof. Bailey.—Ed.

Picturesque Gardens from Ohio to Idaho

GARDEN OF COL. J. H. POOLE
AT DETROIT (MICH.)

City dwellers need not go gardenless but may gather within even a comparatively limited area many delights, as here on this 150 x 175 ft. lot with its cleverly elaborated plan by T. Glenn Phillips, Landscape Architect

GARDEN OF MRS. R. M. DAVIDSON
BOISE, IDAHO

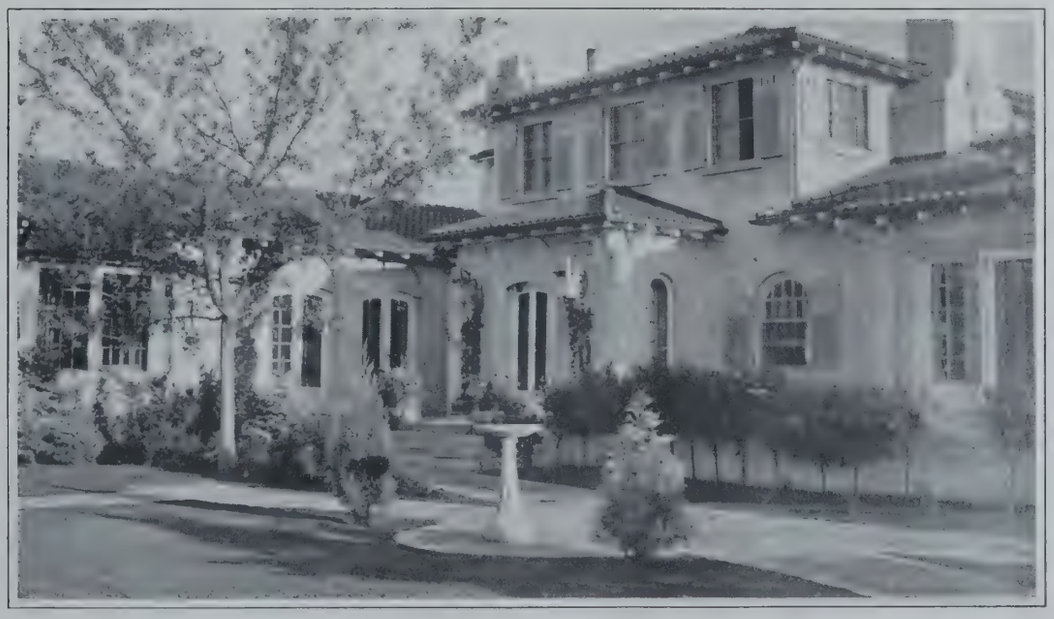
"The arid portion of the North-West, a desert but for irrigation," writes Mrs. Davidson, who has somehow managed to transform her own particular bit of desert into this charming picture with its Michaelmas Daisies, Clematis, and other cool bloom (another view appears on page 195)

GARDEN OF MR. JAMES H. CAUSEY
DENVER (COL.)

A pleasant retreat for hot afternoons is this tea-house with its inviting outlook and friendly sheltering wall. Phlox and Campanula carry the suggestion of coolness too. Irvin J. McCrary, Landscape Architect

GARDEN OF MR. RICHARD GARLICK AT YOUNGSTOWN, OHIO

Perhaps the loveliest of all gardens are those which appear to have no plan and yet beneath whose free-growing greenery is sensed a fundamental rightness as in this delightfully untrammeled place. Olmsted Brothers, Landscape Architects; Charles A. Platt, Architect



GARDEN OF MR. JOHN EVANS AT DENVER (COL.)

The house itself here crooks a friendly elbow, as it were, around the garden upon whose refreshing green many windows look out. Irving J. McCrary, Landscape Architect

The National Garden Association

Formed to promote the annual observance of National Garden Week

LEONARD BARRON, F.R.H.S., President

Honorary Vice-Presidents: J. HORACE MCFARLAND, MRS. FRANCIS KING, MRS. RUSSELL TYSON, MRS. THOMAS G. WINTER, MRS. SAMUEL SLOAN, MR. FREDERICK NEWBOLD, MR. ROBERT PYLE, MRS. JOHN D. SHERMAN.

Coöperating Societies: NATIONAL PLANT, FLOWER AND FRUIT GUILD; AMERICAN DAHLIA SOCIETY; AMERICAN IRIS SOCIETY; ONTARIO HORTICULTURAL ASSOCIATION; AMERICAN FORESTRY ASSOCIATION; WOMEN'S NATIONAL FARM AND GARDEN ASSOCIATION; WILD FLOWER PRESERVATION SOCIETY; NATIONAL HORTICULTURAL SOCIETY; THE AGASSIZ ASSOCIATION; THE SCHOOL NATURE LEAGUE; SOCIETY OF LITTLE GARDENS.

GARDEN WEEK for 1924 is over, but the work begun in that Week will go on, not merely for a week, or a month, or a year, but for all time. Reports of noteworthy undertakings are still coming in, all tending to the making of better citizenry and a lovelier country. It is, therefore, with both pride and humility that THE GARDEN MAGAZINE, having inaugurated this Week, reads such words of praise as these of the Lexington (Kentucky) Garden Club: "Let us then give thanks to those who started this big idea which shall start the growth of beauty not only in our homes and streets, but even in the unhappy and waste places."

Realizing the aid given to this movement by Mrs. John D. Sherman, Chairman of Applied Education in the General Federation of Women's Clubs, we are glad, as a mark of our appreciation of her whole-hearted coöperation, to give our support to her present candidacy for President-General of the Federation of Women's Clubs. Always interested in conservation, urging school gardens and nature study in the schools, when National Garden Week was brought to her attention, she at once grasped its full significance and visualized its possibilities. To her is due the credit for its adoption by the Federated Clubs and, as President-General, we know that her vision and far-sightedness will make this Week an important phase of the Federated Club work.

New Clubs and Their Federation

AS a result of National Garden Week for 1923 and 1924, THE GARDEN MAGAZINE has been able to aid in the establishment of hundreds of garden clubs throughout the country. The growth of the garden club movement is not surprising when the work of such clubs is considered.

Already in four states they have federated—Maryland, Virginia, New Jersey, and New York. Mrs. John Paris—a woman of vision whose name is known to many garden lovers—is President of the recently formed New York State Federation. In the banding together of groups of gardeners in her state, Mrs. Paris has the broadest of purposes: to aid every town, no matter how small, to create its own garden club; to make every garden club eligible to membership in the Federation; and to stimulate greater interest in home gardens, realizing that in the individual garden lies the crux of the whole work and the ultimate beauty of the community.

The constitution written by Mrs. F. J. Swift, President of the Nyack (N. Y.) Garden Club and a lawyer of distinction, is noteworthy for its simplicity and clearness. With the state divided into 9 districts, and with 39 clubs already enrolled as members, with each district chairman pledged to help form new garden clubs, the dream of Mrs. Muller, President of the Valley Garden Club of Syracuse, bids fair to come true, "to make New York State the State Beautiful." Any state desiring to form a federation would do well to study this constitution.

From Florida to Honolulu Billboards Are Going Down

STILL leading in this state beautification work, Florida has again struck a new and vital blow at all kinds of obnoxious outdoor advertising. All candidates for political offices receive the following forceful announcement: "This year the candidate for office who sticks his name and picture on posts and trees along the highway is going to feel the displeasure of the public. He will be defeated the moment he starts tacking his cards up." Twenty thousand Florida club members have banded together to boycott any one advertising in this way. This phase of the anti-billboard campaign has wide appeal and what one state can "put across" surely the others can!

The increasing agitation against disfiguring outdoor advertising is fast bearing fruit, and in most unexpected places. The women of Honolulu notified all Hawaiian merchants that they would purchase no goods advertised by billboards. The result was the levelling of most of these signs, and Miss Beatrice Castle, President of the Outdoor Circle of Honolulu, Hawaii, writes of great strides made toward eliminating all billboards on the island, all but two firms coöperating in this work.

The Standard Oil Company of California will remove its 1,200 billboards throughout the Northwest. Throughout Connecticut, this popular wave is beating against objectionable signs and many have fallen. The nationally known advertisers are beginning to realize that if they would hold the public's good will, they must bow to the public's edict and, as a result, the following firms are pledged to restrict or do away altogether with their outdoor advertising:

The Goodyear Tire Co; Kelly-Springfield Tire Co; B. F. Goodrich Tire Co; Fisk Tire Co; Supreme Gulf Oil Co; Armour's Cloverbloom Butter; Fleishman Co; Kirkman & Son; Pillsbury Flour Mills Co; Washburn Crosby Co; Champion Spark Plug Co; Sun Oil Co; The Hood Rubber Co; The Ajax Rubber Co; Ward Baking Co; Dodge Brothers.

Helpful Booklets for Gardeners in Many Places

AS THIS issue is a special West and Mid-West Number, we are glad to offer bulletins (upon application to the National Garden Association) for residents of the great central belt. We would call attention to the fact that these booklets are intended for distribution *only* in the states named.

South Dakota—The Balanced Garden; Vegetable Storage.

Wyoming—The Farm and Home Garden; Spraying for Insect Pests; A list of available books and bulletins on gardening may be obtained from the Extension Division, Agricultural College, Laramie, Wyo.

Michigan—Trees, Shrubs, and Plants for Farm and Home Planting; The Home Vegetable Garden; Spray Formulas for the Home Garden; Forest Planting in Michigan; Pruning Fruit Trees.

Colorado—The Home Vegetable Garden; Beautifying the Home Grounds.

Utah—Instructions for Flower Garden Clubs (illustrated); Vegetable Garden Guide; Manual for Boys' and Girls' Club Work; Planning and Planting of Home Grounds; House Plants—Propagation and Care; Ornamental Trees and Shrubs.

North Dakota—Perennial Flowers for North Dakota Homes (illustrated); The Farm Vegetable Garden.

Indiana— Hardy Flowering Shrubs and Roses for Indiana; How to Make and Maintain a Lawn; Planting and Care of Shade Trees; Home Gardens; Spray for Plums, Cherries, and Other Fruits.

Missouri—Modern Rural Home; Sprays and Spraying; Insect Pests of Garden Crops.

Nevada—Planning the Farm Home Vegetable Garden.

Oklahoma—The Small Home Garden; Vegetable Spray Calendar; Hotbeds and Coldframes.

Ohio—Beautifying the Farm Home; About Roses; About House Plants.

Montana—Garden Planting Table.

Kansas—The Community Flower Show; Tree Planting in Kansas; Landscaping the Home Grounds with Native Material; Spray Schedules for Kansas Fruits; Lecture Service—address E. C. Johnson, Division of College Extension, Manhattan, Kansas.

Indiana—Beautifying the Home Grounds; House Plants—Culture and Care.

GARDEN MAGAZINE
ACHIEVEMENT MEDAL

Awarded in 1923 to Mrs. Thomas G. Winter for her active coöperation, as President of the General Federation of Women's Clubs, in establishing National Garden Week

National Garden Week for 1925 to be observed April 19th–25th

WHERE ORCHIDS ARE AT HOME

E. H. WILSON

Assistant Director of the Arnold Arboretum; Author of "Romance of Our Trees," "Aristocrats of the Garden," "A Naturalist in Western China," "Travel Tales of a Plant Collector," and other works

I. TROPICAL ORCHIDS OF THE OLD WORLD

Part II, Orchids of the New World, will appear in June

Visiting these Romantic Aristocrats of the Greenhouse in their Native Haunts in China, India, and Borneo—Five Thousand Flowers of Fascinatingly Variable Form Like Bees, Beetles, Slippers, Helmets, Miniature Swans, Moths, and Monkeys

EDITORS' NOTE: The annual meeting of the American Orchid Society with its first big exhibition of Orchids to be held in Horticultural Hall, Boston, Mass., May 8-11, renders very timely this comprehensive contribution of Mr. Wilson and offers unprecedented opportunity for the reader to see some of these arrestingly beautiful and bizarre natives of the Orient and Old World while their history is still fresh in mind.

ORCHIDS are the aristocrats of the greenhouse and the most envied of tropical plants. Their cult has waxed enormously during the last three quarters of a century and they have their ardent devotees in every land. A collection of tropical Orchids and their hybrids is largely a hobby of the rich man, since their wants and maintenance are costly. Many of them are so rare as to be almost priceless and in a manner these are in the same category as masterpieces of painting, porcelain, and other art objects.

The cultural requirements of many Orchids are exacting and the study of Orchid growing has brought into being a race of garden specialists devoted to them alone. Little by little their proper requirements have come to be understood; and this knowledge, together with the well-found modern glass-house structure, has made comparatively easy the successful growing of these remarkable plants. Hybridists in great numbers have worked on the family and to-day Orchid hybrids in cultivation are more numerous than the species. Moreover, many of these hybrids have better constitutions and finer flowers than their parents, and in consequence are more permanent plants in collections. But my theme is of the wildings, and beyond paying a hearty tribute of praise to the Orchid breeders of every land I have nothing to do with the results of their skill.

The Orchid family is one of the most natural and also one of the largest in the vegetable kingdom. Linnaeus, in 1753, knew only about a dozen exotic Orchids; whereas, to-day, fully 5,000 species and more than 400 genera are known! They are most abundant in the tropics, but the family is universally distributed; one species, the little *Calypso borealis* being found as far north as 68° north latitude.

In the temperate regions of this country are found many species including such lovely plants as *Cypripedium acaule, C. spectabilis, C. candidum,* and *C. pubescens.* In Europe and northern Asia, too, grow many interesting Orchids among them being *Cypripedium calceolus, C. macranthum, C. japonicum,* and *C. tibeticum,* all with large and showy flowers. Many species are native to the temperate parts of Australia; and not a few belong to South Africa where, on dripping rocks on Table Mountain, is found the wondrous *Disa uniflora* perhaps the most showy of all terrestial Orchids.

In the cool regions of both the northern and southern hemispheres nearly all the Orchid species grow in the ground after the manner of ordinary plants, but in the tropics, where the great concentration of species occurs, nearly all grow epiphytically upon trees; though not a few are found among humus on rocks and mountain tops. Comparatively few terrestial species are cultivated and, strange to say, when attempted the cultivation has been found more difficult than that of their epiphytic tropical relatives. A few, of which the Bird's-nest Orchid (*Neottia nidus-avis*) of Europe and northern Asia is a well-known example, are saprophytes having no leaves and living on decaying vegetable matter. A few are climbers; but it is, however, doubtful if any are true parasites.

Orchids are especially remarkable for the curiously varied shapes and colors of their flowers which resemble all sorts of dissimilar objects such as a bee, fly, beetle, slipper, helmet, small monkey, moth, miniature swan, dove, cradle and so forth, and the relative sizes are extraordinarily different. Some like Liparis, the Tway-blades, have flowers so small as to require close searching to detect, while others, like the Cattleyas, have flowers 6 inches or more across. The flowers are of every hue from inconspicuous green through all the colors of the spectrum and of every conceivable shade. Nearly all emit an odor, and very many are extremely fragrant. The variability in the form of the flowers is considered an adaptation to insure cross pollination by insects and honey-loving birds.

The flower is irregular in shape with six usually petal-like segments inserted above the ovary. The three outer ones, called sepals, and two of the inner ones, called petals, are often nearly alike; but the third inner segment, called the lip or labellum, differs from the others in form and in direction. Properly this lip should be at the top of the flower as it is in *Disa uniflora;* but usually it is at the bottom, being brought into this position by the twisting of the ovary. Opposite the lip and overhanging it in the axis of the flower is what is called the column which consists of 1, rarely 2, stamens combined with the pistil; the 1 to 4-celled anther or anthers being variously situated on the style itself. The pollen is rarely granular and free, being almost invariably glutinous or agglomerated into 2, 4, or 8 masses termed pollinia which are fixed either directly or by means of a tiny stalk (caudicle) to a viscous gland below the anther. The style is produced at the top into a prominence or fleshy beak termed a rostellum. The seeds are minute, multitudinous, and easily dispersed by wind. So much for the flower-structure.

Now a word or two about the plant in general. A feature of most Orchids is the storage tissues for reserves of water and foodstuffs. In many terrestial species, like Orchis itself, this warehouse is represented by two or more small tubers at the base of the stem and below the ground; in epiphytes, like Cattleyas and Dendrobiums and others, the aerial stems are thickened to serve the purpose and are known as pseudo-bulbs. In Phalaenopsis and other genera the leaves are thick and leathery, and serve as storehouses.

Again the roots of epiphytic Orchids are of three kinds, each fulfilling a separate function. In the first place, to fasten the plant to its support there are clinging roots which are insensitive to gravity. Secondly, the niche between the plant and its support, and the network formed by the clinging roots, acts as a reservoir for humus; and into this absorbing or feeding roots project. Finally there are true aerial roots which hang down in long festoons. The skin of these is colorless and perforated and acts as a sponge to absorb water trickling down over the roots. The internal tissue is green as may be seen on wetting a root. Orchids have a host of peculiarities some of which will be mentioned later but the above may serve as a sort

SPUR-FLOWERED ANGRAECUM

Though Africa is remarkably poor in Orchids several species of Angraecum (epiphytic in habit) are indigenous, of which A. sesquipedale (shown above) found in Madagascar is perhaps the finest, with its star-shaped white flowers and foot-long spur. "On the same island is a moth with a tongue sufficiently long to suck the nectar from the bottom of this spur and it is the only insect that can remove the pollinia and effect the fertilization of the flowers" (See page 219)

of introduction to the family in general.

Since our subject is a large one, it is convenient to divide it and deal separately with the Orchids of the Old and the New Worlds. Moreover, as the genera are so numerous I content myself with brief mention of those most commonly seen in greenhouses.

Creeping Species as Tiny as Mosses and Epiphytes Ten Feet Long

IN THE forests of Malaysia, epiphytic Orchids are extraordinarily abundant, extending southward to northern Australia and northward through the Philippines to Formosa. On the mainland they abound in Indo-Malaya and northward to southern China. On the other hand, the Indian peninsula and Africa are poor in Orchids. The species mostly have a very limited range, being often confined to a single small island or to a particular mountain. They grow clustered together often in large numbers, and the branches of the major trees of the steamy forests of the Malay Archipelago and Indo-China are laden with Orchids of many kinds. Although there is a peculiarity of habit that enables one soon to detect an orchidaceous plant even when not in flower, yet they vary greatly in size and appearance. Some of the small creeping species are no larger than Mosses while the Grammatophyllum of Borneo, which grows in the forks of trees, forms a mass of leafy thickened stems 10 ft. long and the whole plant weighs many hundreds of pounds. Owing to the great monetary value of certain Orchids and the vigor and enthusiasm with which their cultivation has been prosecuted the world has been ransacked for these plants. Much human energy has been expended and many lives given in their quest and a halo of romance surrounds the whole topic. More has been made of the subject than of any other branch of plant introduction.

As a matter of fact Orchids, at least the epiphytic ones, are easily transported from their homes to our conservatories. With their pseudo-bulbs and thickened leaves they are capable of withstanding a considerable amount of dessication though careful and expert handling is needed to properly establish them on arrival at their destination.

Owing largely to the fact that they require great heat, an extensive group, of which Vanda may serve as an example, is known as East Indian Orchids. Another large group of Old World Orchids flourishes best under moderate heat. Of these, many Coelogynes, Dendrobiums, and Cypripediums are familiar examples.

"VANDA IS ANOTHER FINE GENUS"

With strange strap-shaped leaves curving scimitar-wise to right and left Vanda suavis is an arresting member of the Orchid family; a native of Java; white flowers spotted red-purple with deep purple on basal half of the lip (described on page 218)

Dendrobiums which Drape Mighty Cryptomerias and Furnish Century-old Medicine to the Chinese

THE first wild epiphytic Orchids I saw in any quantity were *Dendrobium chrysanthum* and *D. chrysotoxum* in the forest of Yunnan and I may as well begin with this particular genus. It is a large and popular one in gardens and its members are found in great plenty from north Australia throughout the Malay Archipelago and north to Japan; on the mainland it abounds in Indo-Burmah, Assam, and south China. The most northern species is the pleasing little *D. moniliforme* which is abundant on the mighty Cryptomerias planted as an avenue leading to the shrines at Nikko. One of the most popular of all is *D. nobile* which is common and wide-spread in western China south to Burmah and for centuries has been a favorite medicine among the Chinese. From Burmah came the splendid *D. thyrsiflorum* with its broad large racemes of flowers with rich yellow lip and white sepals and petals. *D. formosum* with its broad pure white flowers, the lip blotched with yellow, hails from Indo-Burmah and *D. Phalaenopsis* with its racemose spikes of finely colored phalaenopsis-like flowers from North Australia. The fine *D. Dalhouseanum* with its tinted gray sepals and petals and velvety crimson fringed lip is Indian; and *D. Brymerianum* with scented, deep yellow flowers and remarkably fringed lip is native of Burmah. One of the best Australian species is *D. superbiens* and another good one is *D. bigibbum* both from the region of Torres Straits. A number of handsome species are natives of New Guinea, one of the best being *D. atro-violaceum* with primrose-yellow, spotted with dusky brown, sepals and petals and the lip deep violet-purple with a few paler radiating lines near the margin; on the outside the lip is green with a large dark violet irregular blotch on either side. The flora of New Guinea is very little known, and we may expect it to yield, some day, many fine Orchids and other plants.

More than 300 species of Dendrobium are known. The pseudo-bulb exhibits much variation, being only slightly swollen and stick-

like, relatively stout, cylindrical, swollen at or between the joints and tubercled in appearance.

Of Lovely Ladyslippers and "The Lost Orchid"

ONE of the most popular classes is that of the Cypripediums, the Lady-slipper Orchids, characterised by their united lateral sepals and pouch-like lip. Under this name are grouped, in the popular mind, species found in the cool temperate region of America, Europe, and Asia, in tropical Indo-Malaya and south China and in tropical America. But there are sufficient technical differences to divide this composite group into three genera.

Strictly speaking the true Cypripediums are confined to the temperate regions mentioned; the tropical American species are referred to the genus Phragmopedilum; and those of the eastern tropics to that of Paphiopedilum. This explanation is necessary, but for the purpose of this article we may adhere to the old accustomed usage of the generic name Cypripedium.

Some of the temperate species were mentioned in the introductory paragraphs and space forbids of any further reference. There are, however, in south China and Indo-Malaya a whole host of species, many of which are among the most popular and best known Orchids. Prominent among these is the familiar *Cypripedium insigne*, native of the eastern Himalayas, one of the most easily grown of Orchids and one that revels under cool conditions. The flowers are erect, of varying shades of polished yellow, brown, white, and green delightfully blended. There are very many named forms of this, differing in the color of the flowers, and all very lovely. Another favorite Burmah species is *C. villosum* which has been so largely used by the hybridist. The mountains of Bhutan and adjacent Sikkim are the home of the pretty *C. Fairieanum* with its decurved, ciliated lateral petals. It was first introduced in 1857 and flowered and was figured in the *Botanical Magazine* (t. 5024) of the same year and subsequently lost. For fifty years its habitat remained unknown and a large reward was offered for its rediscovery but all efforts failed until 1904. It became famous as "the Lost Orchid" (see "The Romance of a Lost Orchid," THE GARDEN MAGAZINE, Mar. 1906, page 62,) but its re-introduction was bungled and very little monetary reward fell to those who succeeded in winning anew this plant into gardens.

A DENDROBIUM FROM BURMAH

"The first wild ephiphytic Orchids I saw in any quantity were Dendrobium chrysanthum and D. chrysotaxum in the forest of Yunnan," writes Mr. Wilson (page 216). Its graceful sprays of small golden yellow flowers (with reddish streaked orange disk on lip) and its accomodating habit make D. chrysotaxum (shown above, a favorite for greenhouse culture

BULBOPHYLLUM MEDUSAE

Of the many bizarre and tricksy forms that Orchids manage to achieve none is more extraordinary than this where the sepals (dull pale yellow spotted with pink) are drawn out into long drooping hair-like threads strangely reminiscent of the mythical Medusa for whom this Singapore species is named

Those just named and others with scapose flowers have green leaves, but there is another and more tropical section having leaves beautifully marbled with white and dark green. Among them may be mentioned the handsome *C. callosum* of which there are many named and winsomely colored forms—also *C. Curtisii* of Sumatra and *C. Lawrenceanum* of Borneo. The latter has a dark red-brown pouch and a broad white, striped with red-brown standard. The limestone-loving Burmese *C. bellatulum* and its yellow flowered confrere, *C. concolor*, have marbled leaves and are found as far north as south China. Another species of the same group is the delightful *C. niveum* which is native of the Malayan Islands and first introduced in 1868. Another group with large flowers in racemes and long green leaves is represented by a number of species of which *C. Rothschildianum*, *C. Stonei*, *C. superbiens*, *C. barbatum*, *C. Parishii* amd *C. argus* are fine representatives. These have long, often arching, and usually bearded lateral petals, frequently marked with eye-like dots; and the flowers are more or less dark colored. Most of them are Malaysian but several grow in the Philippines.

Orchids that Flourish Where the Snow Flies and a Terrestrial "King of Flowers"

I SHALL long remember the pleasure I felt on first beholding in a wild state the well-known *Coelogyne cristata*. It was in the forests of Sikkim above the Teesta River where hungry leeches swarmed on all sides. The plants grow on moss-clad rocks and at

an elevation where snow lies during the winter months. Greater heat is required for *C. Massangeana* and *C. Dayana* with their pendent racemes of ochreous yellow and brown flowers. These are natives of Borneo, whilst *C. Veitchii* and related species, with flowers of the purest white, are from New Guinea.

Closely related to Coelogyne, and by some authors united with it, is the genus Pleione often called Himalayan Crocus. These are curious tufted plants with flattened disc-like pseudo-bulbs and grow among moss on humus-clad rocks or tree trunks. They are deciduous and most of them flower before the leaves appear. The best known are *P. lagenaria, P. maculata,* and *P. humilis.* The genus extends northward and eastward into China and one species (*P. pogonioides*) is common in Hupeh province, growing on rocks in the forest where it is covered with snow in winter.

A genus of Orchids which in quite recent years has been enormously developed by the hybridist is Cymbidium. The genus is widely distributed in the eastern tropics with members extended into the temperate regions of China and Japan. Some of the species are truly terrestrial, some grow on the tops of rocks and others are true epiphytes, growing usually in the forks of trees. One of the oldest and best known species is the Himalayan *C. grandiflorum* with its long, spreading racemes of flowers splashed and barred with rufous-brown, the lip yellow and crimson. Quite different in appearance are *C. eburneum* and *C. Sanderae* with their ascending almost upright flower-stems and few flowers, white in the former, spotted and barred with rose-red in the latter. These have proved of great service to the hybridist who, by crossing them with some of the older sorts which have spreading many-flowered racemes, has evolved a race of useful plants of wondrous beauty, whose flowers last for a month or six weeks. Perhaps the most inconspicuous member of the genus is *C. ensifolium,* a terrestial species common in many parts of China. This the Chinese regard as the king of flowers, its modest appearance and the delicate odor of its blossoms being considered to represent the very essence of refinement.

A common terrestrial Orchid in China is *Bletilla hyacinthina,* occasionally cultivated in our greenhouses and interesting as the plant in which Robert Brown discovered the cell-nucleus. Another and more widely known terrestrial Orchid is *Phaius grandiflorus* which grows in moist and boggy places from Hongkong southward through Malaysia to northern Australia and presents much variation in the color of its flowers. In Yunnan and southward to Burmah grows *Thunia Marshalliana* and, in the neighborhood of Rangoon *T. Bensoniae* with amethyst-purple flowers and frilled lip.

The genus Calanthe is widely dispersed in the Orient, and quite a number of species grow in the forests of China and Japan, but the species most generally cultivated are from Burmah. From the neighborhood of Moulmien came *Calanthe vestita* in 1848 and *C. rosea* in 1850 which, hybridized by John Dominy in 1856, resulted in × *C. Veitchii,* the most popular Calanthe of our gardens. This genus Calanthe is of exceptional interest since by crossing *C. falcata* and *C. masuca* was raised the first hybrid Orchid to flower. The work was done by John Dominy for Messrs. Veitch of Exeter. The plant flowered in 1856 and was named × *C. Dominii* by Lindley who commented that such work would drive the botanists mad.

Very similar in appearance and quite closely related are Bulbophyllum and Cirrhopetalum to which belong several hundred species, found from China south to Australia. They are epiphytes but frequently grow on humus-clad rocks where their dwarf habit suggests incrustations of Lichen or small pebbles. The leaves are often mere scales and their functions are performed by the tuber-like pseudo-bulb. In an Australian species (*B. minutissimum*) the pseudo-bulb is hollow and has breathing pores (stomata) on the inner surface. The flowers are not showy, but those of some species like *B. barbatum* are fascinatingly curious. This has a small dull-colored flower with a relatively large fringed and ciliated lip so delicately poised that it moves up and down at the slightest air. Another and similar species is *B. mandibulare,* native of north Borneo. Some of the Cirrhopetalums have attractive small flowers arranged umbellately in a circle at the top of a short stalk and have a protruded straight lip suggesting the beak of a pelican.

THE FAMOUS LOST ORCHID

Singularly alert in carriage and almost truculently alive appears Cypripedium Fairieanum, a native of the mountains of Bhutan, a tiny Asiatic state touching the north-eastern rim of India. First introduced in 1857 and almost immediately lost, this Orchid was not rediscovered in its remote mountain home for nearly half a century

Some Philippine Beauties and a Giant of the Eastern Tropics

NO GROUP of Orchids is more beautiful in blossom than the Phalaenopsis or Moth Orchids of which some 35 species are known. One of the best known is the white-flowered *P. Aphrodite,* native of the Philippines and south Formosa. Very lovely too is *P. Schilleriana* with rose-pink blossoms. The oldest known is *P. amabilis* which grows in Java, Borneo, and other islands and has large handsome flowers. This species was known to Rumphius as early as 1750 and is figured by him in his "Herbarium Amboinense."

A common Philippine species is *P. rosea* which grows in the hot valleys in the neighborhood of Manila and has been much used by the hybridist. Less frequently seen in collections are the Sumatran *P. violacea* and *P. sumatrana.* All the Phalaenopsis have lovely flowers and in many species the strap-shape leaves are reddish below and prettily mottled on the upper side.

Vanda is another fine genus with large fragrant flowers of many hues. Perhaps the most exquisite of all is *V. coerulea* with large flowers of soft light blue tessellated with azure. This is one of the gems of the orchid world and captivates all who see it. It was discovered by William Griffith in 1837 on the Khasia Hills, but all attempts to introduce failed until 1850 when Thomas Lobb sent living plants to Messrs. Veitch of Exeter. A related species with pale lilac-blue flowers is *V. coerulescens,* native of upper Burmah.

The well-known *V. suavis* and *V. tricolor,* natives of Java, were introduced into cultivation by Thomas Lobb in 1846. Both have axillary racemes of thick fleshy flowers with a strong spicy odor. In *V. suavis* the flowers are white spotted with red-purple and the basal half of the lip is deep purple. The flowers of *V. tricolor* are similarly spotted on a yellow ground. From the Moluccas came *V. insignis* with tawny yellow flowers spotted with dark brown and bright rose-purple lip. A Philippine species is *V. Sanderiana* with handsome flattened flowers, white flushed with buff yellow and reticulated with dull crimson. Very distinct in habit are *V. teres* and *V. Hookeriana,* both rambling plants with round cylindric leaves as thick as an ordinary pencil. These have red, white, and purple flowers in racemes but rarely appear in flower under northern skies. In Botanic Gardens of the eastern tropics they are seen to advantage, but the finest I have ever seen were growing in tubs and pots in the garden of Raffles Hotel in Singapore—scores of large plants receiving little or no care but bearing hundreds of racemes of their brightly colored flowers.

Another plant I saw thriving to perfection in the same garden was *Renanthera coccinea.* The Javan *R. matutina,* with reddish and crimson flowers toned with yellow and changing with age to orange-yellow,

has long been known in gardens though it is not common, while *R. Imschootiana*, a new comer, is more generally known to-day.

Closely related to Vanda is Arachnanthe, of which *A. Cathcartii* from the shady valleys of the eastern Himalayas and *A. Lowii* from Borneo are in cultivation. The last-named has a comparatively small cluster of leaves and flower-stems which hang down like cords to a length of from six to eight feet and are covered with numbers of star-shaped crimson spotted flowers of two kinds.

The giant among Orchids of the eastern tropics is *Grammatophyllum speciosum* with leafy stems from six to ten feet long and racemes of many flowers, clear yellow spotted with deep red-purple, each flower six inches across, and occasionally as many as one hundred on a raceme. It first flowered in England with Messrs. Loddiges at Hackney in 1852.

Very pleasing are the different species of Aerides with their many flowered, often cylindric racemes. One of the best known is *A.multiflorum*, native of Burmah, of which there are many forms including one named *Veitchii* with rose-purple lip and white dotted with rose petals and sepals. To *A. Fieldingii* also of Burmah the name of Fox-brush Aerides has been given in allusion to the shape of the inflorescence. Very similar to Aeirdes is Saccolabium of which the Javan *S. Blumei* with waxy, fragrant, rose-pink flowers is well-known. The lip resembles the keel of a ship and the flowers are densely crowded in cylindric racemes. Other species are *S. Huttonii*, *S. giganteum*, and *S. bigibbum*, the latter with yellowish flowers each with triangular, fringed, white lip.

THE JUSTLY POPULAR CYMBIDIUM

"A genus of Orchids which in quite recent years has been enormously developed by the hybridist is Cymbidium" (C. Paulwelsi shown here)

Of showy epiphytic species the finest hail from Madagascar. Two species of Eulophiella (*E. Elisabethae* and *E. Peetersiana*) are worthy of special mention. The first-named has many flowers in a raceme, each flower 1½ inches across, the lip white with golden disk and white sepals and petals, the former marked with rose-color on the outside. In *E. Peetersiana* the racemes are more dense and the flowers, each about 3 inches across, are rose-purple with a golden blotch on the lip. Several species of the spur-flowered Angraecum are indigenous in different parts of Africa. The pretty little *A. Kotschyi* grows in Zanzibar and on the adjacent mainland. On Reunion Island is found *A. fragrans*, the Faham, whose leaves, known as Bourbon Tea, taste of bitter almonds and were at one time used medicinally to stimulate digestion and in pulmonary tuberculosis. *A. hyaloides*, with small white semi-transparent flowers, and the better-known *A. citratum* are of Madagascar. So, too, is the handsome *A. sesquipedale*, the aristocrat of the genus and one of the most wonderful of Orchids. This species has strap-shaped, distichously arranged leaves and in habit resembles certain species of Vanda. The flowers, two to several on a raceme, are star-shaped, each from 6-9 inches across, waxy in texture and pure white; the base of the labellum is projected into an enormous hollow spur from 12 to 14 inches in length at the bottom of which honey is secreted. Indigenous in the same island is a moth with a tongue sufficiently long to suck the nectar from the bottom of this spur, and it is the only insect that can remove the pollinia and effect the fertilization of the flowers. This is a marvellous example of mutual adaptation of flowers and moth for their common benefit. (See page 216.)

Reciprocity among African Moths and Flowers

AFRICA is remarkably poor in Orchids and there are very few with showy flowers known from that vast continent. There are a number of terrestrial species especially in the extreme south, and the most remarkable of all, *Disa uniflora*, has been mentioned as peculiar to Table Mountain.

—*In triumphant contradiction of the commonly held belief that the Orchid is primarily "a rich man's flower" comes Mrs. J. Norman Henry's article in June* GARDEN MAGAZINE *telling of her success with thirty or more Orchids in a tiny 6 x 7 ft. greenhouse "too small to be of any practical use, so everybody tells me," writes Mrs. Henry, "and yet it has been and still is, for me, a perfect little Paradise."*—ED.

A NEW TREE GARDEN FOR THE MIDDLE WEST

ARTHUR G. ELDREDGE
University of Illinois

Memorial to J. Sterling Morton, Clear-visioned Pioneer and Secretary of Agriculture, Founded by His Son

AMONG the gently rolling and heavily wooded hills near Lisle, Illinois, there is now coming into being an institution that is destined to do great things not only for the Middle West region where it is located, but for other parts of this country. It will accomplish for this region the same kind of great things that the Arnold Arboretum has done for the East; and even as that institution has showered its benefits into far distant sections, so will the Morton Arboretum in Illinois in time serve a similiar purpose and perhaps even to greater effect, since it is more favored in both scope and site.

. . . *"for practical scientific research work in horticulture and agriculture, particularly in the growth and culture of trees, shrubs, vines, and grasses by means of a great outdoor museum arranged for convenient study of every species, variety, and hybrid of the woody plants of the world able to support the climate of Illinois, such museum to be equipped with an herbarium, a reference library, and laboratories for study of trees and other plants, with reference to their characters, relationships, economic value, geographical distributions and their improvement by selection and hybridization, and for the publication of the results obtained in these laboratories by the officials and students of the Arboretum, in order to increase the general knowledge and love of trees and shrubs and bring about an increase and improvement in their growth and culture."*

And what an inspiration it was that led Mr. Joy Morton to perpetuate the memory of his father by the creation of so

noble a monument to that great pioneer who all his life saw visions of tree planting and has left enduring memorials of his beliefs throughout Nebraska, where he dwelt, and elsewhere in the West. Not only this territory, but also the whole United States is to be congratulated on the materialization of what was long in his mind. This needed institution is now made possible by Mr. Morton's gift of 400 acres, the greater part in heavy hard-

A GLIMPSE IN THE MORTON ARBORETUM

There are many fine native Haws on this property of 400 acres among the gently rolling and heavily wooded hills near Lisle, Illinois, and recently dedicated to splendidly constructive uses through the generous vision of Mr. Joy Morton

wood forest, and the scope of the institution is clearly outlined in the accounts of the Deed of Trust, quoted above.

Construction actually began in the fall of 1921 and progress has been made steadily since. The roads have been laid out, and some are already in use, and lakes have been constructed and one quarter of a mile of trees and shrubs has been already planted. To insure the ultimate effectiveness of this experimental beginning, Mr. O. C. Simonds has been retained as landscape architect.

The first thought has been to display the woody plants native to Illinois, and then successively plants of the Middle West, the Eastern, and the Western coastal plains, as well as the remaining temperate zones of the world; although the present restrictions of the Federal Horticultural Board would seem a definite hindrance in this larger direction. The main part of the Arboretum is to be occupied by family groups arranged as far as possible according to their relationship. Grass walks will lead the visitor between the species of the first section on one side, and the hybrids of those species on the other side; then to the hybrids between the species of the first and second section on to the species of the second section, etc.

The appeal to the garden maker is borne in mind also, for nestled into the natural contours and sheltered by the heavy Oak woods a large Rose garden will take form, and here will be demonstration collections of the climbing varieties and garden hybrids, while close by will be the wild Roses embracing some hundred and fifty species and varieties arranged in a natural way.

By this continuity of the family groups and species their study will be made much easier and more interesting and at the same time be pleasing to the general public by bordering the roads through these family groups with a prominent member; as, for example, through the Rosaceae with wild Roses.

One of the special ideas to be developed will be the plantations of geographical groups in the hope of creating natural types of forest, representative of Eastern and Western American woods, Japanese, Chinese, Siberian, central European, etc. The high mountain shrubs of the world will be brought together in a secluded rockery.

Along woodland borders there will be planted many groups for landscape effect with the effort to discover the best combinations of shrubs, divided into spring, summer, and fall groups; a very important undertaking and one sorely needed for the region.

An important task for the more scientific work of the Arboretum is the study of tree hybrids of doubtful origin, a slow and difficult process involving much labor and years of study, but the results may be of great value generations hence in the forest products industries.

Ample and elegant facilities for library and herbarium are provided in connection with the founder's residence, located on one of the highest points of the property, surrounded by a splendid Oak forest whence one may look through long vistas east and south across fertile valleys having sufficient

LIBRARY AND HERBARIUM AT THE NEW ARBORETUM

A focal point for all the indoor activities of extensive research where laboratories will be maintained, records kept, bulletins published, and the practical outdoor work of the big Arboretum will be ably and scientifically supplemented

agricultural activities to make a delightful and interesting prospect.

It would take many pages to deal with all phases and details of the development of so large an Arboretum. Growth of the whole scheme will, of course, be slow even though the rich deep alluvial soil offers cultural opportunities of exceptional value for the trees etc. It will take a generation to develop the dominating elements, but only a few years to make a fine showing with the flowering shrubs and herbaceous plants. Such an institution must perforce bring a new interest and influence to the garden and planting problems of the Middle West, and perhaps it is an auspicious beginning and is a portent of a future which will be wise enough to establish an Arboretum in every state, to the end that people my develop a greater appreciation of the beauties and enobling influences of natural landscape.

GARDENING IN A COPPER COUNTRY

NORMAN CARMICHAEL

Converting an Abandoned Arizona Mining Site into a Livable Garden where Roses and Palms, Oleanders, and Olive Trees Have Peacefully Supplanted the Cattle Rustler and His Kin

FOLLOWING the lure of copper for a livelihood, my lot for seventeen years was cast in a mining camp in the extreme southeastern corner of Arizona. In the early 'seventies of last century, Clifton was a mere hamlet, "wild and woolly" as any Western mining camp could be, a happy hunting ground for Indian raiders, cattle rustlers, claim jumpers, cut-throats, and gamblers, a weird enough setting for the entertaining novel, "Miss Nobody in Nowhere," written by Archibald Clavering Gunther in 1881. With the advent of railroads, however, conditions began to change. The wily Geronimo and his band of marauding Apaches were soon run to earth; the cattle-thief and claim-jumper became undesirable citizens and were requested to "move on"; the rule of the "shooting iron" was broken, and under civilizing influences Clifton gradually, if somewhat reluctantly, settled down into the more commonplace, if less picturesque, ways of a respectable, God-fearing community.

With the exception of that occupied by the railroad and the copper works there was practically no level land for home sites for the workmen without going too far away since, for the greater part of its length through the town, the cliffs rose steeply from the river edge; in fact, the entire width between walls was river bed, and where the narrow strip of land along the margin had been used for building purposes it was held by courtesy of the river only which, while usually an innocent, inoffensive enough stream of a dozen yards or so across and a foot or two deep, occasionally would rise in wrath and claim its own. On such occasions the water might lift fifteen or sixteen feet in a few hours and, overflowing the banks, run rampant through the town carrying before it everything movable, and not infrequently lives were lost. Gradually, as the place grew larger, the people built higher and higher up the sides of the canyon. In those days any attempt at beautifying the home surroundings with gardens met with discouraging results, not alone from constantly threatening peril of floods, but still more persistently from the sulphurous fumes belched by the smelter into the atmosphere and carried by the winds into every nook and corner of the neighborhood. Under such conditions gardening became a cruel joke, and when flowers were wanted to give the aesthetic touch to some festive occasion they had to be procured from California seven hundred miles away.

THREE VIEWS OF MR. CARMICHAEL'S ARIZONA GARDEN

Once a bare gravel patch near an abandoned smelter and now transformed by the energy and vision of its owner, the author, into this refreshing place where Roses and Palms, Olives and Walnuts live in peaceful companionship and the feathery plumes of the Pampas-grass sway above a quiet lawn

Years passed, and the march of progress rendered the old plant obsolete and called for the building of entirely new works on a much larger scale and a better site was found for these some distance off. Directly across the river from the old site was a bay where the river at one time had its course, and which was kept washed out by oft-recurring floods; at all other times it was a bare gravel patch or crescent-shaped tract containing about five acres, sloping gently toward the river. Casting my eye upon this piece of waste land, I saw a vision and a solution of the garden problem.

Our works produced a large quantity of waste material amounting to more than a thousand tons each day. This consisted of crushed ore, from which the copper minerals had been washed, or leached, grading in size from that of coarse gravel to fine sand; also of melted slag, which solidifies on cooling into a very heavy black stone, brittle and glassy. My plan was to use all of this material for filling in the bay across the river until it should be raised to a sufficient height to render it secure against floods, using the loose material for back fill, and protecting it along the river front with a wall cast of molten slag which, when cooled, would form a solid homogeneous mass, well fitted to resist the eroding action of the river in flood.

Copper salts have the reputation of being injurious to plant life, and predictions of failure in any attempt at making a garden with these tailings from the copper works were the order of the day, for all of it contained a certain amount of copper residue. Nor was I any too sanguine myself.

After the work of filling was completed, and the tailings thoroughly settled with water, and the surface levelled off, the question of a top dressing of soil was taken up. Finally, some river silt left in a depression along the base of the cliffs was found, enough to cover an acre nearly two feet deep; and with this and some manure from the town dairy a start was made. Unfortunately, the silt contained a large percentage of alkali, and little humus; the subsoil of tailings contained copper and was as barren as road metal; the slag foundation below was as the porcelain bottom of a pot, except for the favorable occurrence of shrinkage cracks which provided drainage.

Water for irrigation was another difficulty, that furnished the town for domestic purposes being too expensive for use in the quantities needed, while the river, except when in flood, carried an objectionable quantity of common salt, and when in flood was extremely dirty. This, however, had to suffice, while a climate with ninety per cent. sunshine, an exceedingly low humidity, practically no dew fall, a winter without snow but with occasional frosts of twenty degrees or more, and in summer peak temperatures of 110° F. in the shade, combined to offer a set of conditions calculated to favor the prophecies of the pessimists—at least the experiment promised to prove interesting!

A Triumph in Lawn Making

MY FIRST consideration was to have a neat lawn, if nothing else, so all the available space around the house was sown to grass. Various "dry climate" mixtures of "fine lawn" grasses and White Clover were tried, but while a beautiful lawn was had during the following spring and early summer, the first real heat withered it and, in spite of copious irrigation, it could not be kept alive beyond the middle of June. We were then driven back on the common coarse Bermuda Grass which, while not highly thought of, has many advantages, for, where properly cut, it forms a beautiful green spongy turf, needs little water, and revels in the fiercest heat of summer, shunning only the shade, its chief disadvantage being that it dies with the first frost of winter and turns a pale, unsightly straw color. Our later practice was to cut close in the fall and rake in Australian Rye. A new green lawn was thus secured in the course of a few weeks which flourished through the winter and into the following spring. When it dies out, its place is taken by the Bermuda, which (being perennial) again springs up, and soon the lawn is green again. But the Rye must be re-sown each fall.

It has taken much time to determine whether trees and shrubs could be grown successfully under the conditions described, and by the process of elimination to discover what kinds are best adapted to cope with them.

Admiration of the Pepper-tree, with its graceful evergreen foliage, led me first to surround the place with them. Four-year-old saplings planted twenty feet apart in 1913 have done fairly well, and many of them now rub shoulders at a height of twenty-five feet or more. A few languished, while some died unexpectedly after flourishing for several years, as if their roots had suddenly absorbed some deadly poison. Winter frosts, however, frequently kill the foliage and, if very severe, even the tree itself, so I later planted Black Walnuts alternately with the Peppers which, while slow in becoming established, have proved amenable, and should calamity some day overtake the Peppers, as is likely, the Walnuts will be found well able to make good the deficiency.

Other trees, among them the Olive, Ash, Locust, and several varieties of fruit trees, have done well so far; while two groups of Washington Fan Palms on either side of the driveway, less than three feet high when planted, now have their lower fronds trimmed off six feet above the ground. The Pomegranate seems to fairly revel in alkali and copper tailings, for a hedge of these raised from seed in 1914 soon attained the desired height, while specimens allowed to go untrimmed are flourishing trees twelve feet or more high.

Two shrubberies on the front lawn, not set out until 1915, and changed about a good deal since as failures were replaced, are now thoroughly established and, with the blending of the foliage of Pittosporum, Crataegus, and Euonymus, Phoenix Palm, the Arizona and Italian Cypress, and the graceful, feathery plumes of the Pampas-grass, and lighted up in season with the pink and white blossoms of the Oleanders and yellow of the Spanish Broom, form an effective and truly beautiful decoration.

To find suitable creepers to cover the house and protect the walls from the heat of the sun proved quite troublesome, and three years were lost in an endeavor to make the Ficus ripens a success. English Ivy, planted on the north side, got away well, and now completely covers that wall; while other vines which have proven satisfactory are the Trumpet-vine, several varieties of Passion-flower, Clematis, and a lovely evergreen clinging Bignonia, whose dark, glossy leaves and pretty yellow flowers made a truly beautiful wall covering.

Wars for the Roses Now

MANY of the common garden flowers have done well, although they take particular care; Roses gave, perhaps, more trouble than all others combined, and for years our efforts were frustrated by the unfavorable conditions, till in despair we were ready to try out almost any suggestion given us. Finally it was realized that an entire change of soil would have to be made in the Rose bed. We had none but that which had resulted from the decomposition of alkaline sedimentary formations, so I decided to try out fresh soil from the granite mountains lying some miles to the north, several wagonloads of which were procured, and a new start made. This mixed with leaf mould gathered in basket loads by Mexican children from under the Mesquite bushes growing on the hillsides near by, solved our difficulties, and since then we have been able to bring to successful bloom many of the choicest varieties of Rose.

Climbing Roses adapted themselves more readily to the existing conditions, for in a comparatively short time a pergola one hundred and twenty feet long was completely covered with many different kinds whose successive bloom throughout the spring and fall months attracted the greatest admiration. This pergola also serves to support a high wire fence used to screen off the tennis court, the unsightly nakedness of which fence is completely hidden by a covering of Moon-vine, whose bloom of softest blue in late summer is a sight the beauty of which well earns the admiration of all.

Gradually, and by dint of copious irrigation, careful fertilization, and thorough cultivation, the soil has become much improved, and results secured with a tithe of the effort needed formerly. There is more time for other things—a slag rock garden here, a Lily pool there, with a fountain and goldfish, a rustic shady-house covered with Honeysuckle, inside of which are hanging baskets of Asparagus Sprengeri and Ferns; these, and a little greenhouse for propagating seeds, are some of the later additions.

A Friendly Wisconsin Driveway

A well planned driveway is a gesture of hospitality no host can afford to neglect and the approach to Dunmovin, the country home of Mr. Henry S. Cooper near Kenosha, is a delightful series of vistas subtly revealed and concealed by curves as here when the road sweeps houseward under an arch of magnificent Burr Oaks (above)

Now the drive swings through a stretch of fruit or seed-bearing trees and shrubs whose products are left undisturbed as an invitation to every feathered creature which summers in Wisconsin

FLOWERS FROM SNOW TO SNOW ON THE DAKOTA GREAT PLAINS

FANNIE MAHOOD HEATH

EDITORS' NOTE: The author of this article, Mrs. Fannie Mahood Heath, is a pioneer of Grand Forks, North Dakota, and is joint author with Prof. Y. F. Yeager, Horticulturist of the North Dakota Experiment Station, of a bulletin (number 170) "Perennial Flowers for North Dakota Homes." In this bulletin Mrs. Heath describes more fully the results of some forty years' experience, during which time she has transformed a bit of North Dakota prairie into a charming, growing wilderness of beauty. The text of the bulletin also carries reports of extensive tests carried out by the Horticultural Department of the State Agricultural College with collated notes of the experience of others who have gardened in the state. A list of 374 species of tested plants is given with remarks on hardiness, with a supplementary list of 61 perennials selected as being the most generally useful, hardy, and easily cultivated; with names arranged in order of blooming, beginning April 20th at Fargo (N. D.) and continuing through to September 20th. Cultural instructions are given concerning all the plants named and particular attention is accorded to native plants suitable for cultivation.

It is interesting to record that this bulletin is the first publication of its kind emanating from any Agricultural Experiment Station and is expressive of the wide-spreading interest that flower gardening and home ground adornment is exercising in what are commonly regarded as the purely agricultural regions.

ONLY those who have passed through a similar experience can fully understand what it really means for one with an intense love and longing for all that is beautiful in nature to leave behind him cool woods with shadowy depths, sparkling waterfalls that break in silvery cascades over mossy stones, a sparkling, gurgling trout stream flowing through banks fringed with dainty, woodsy treasures and be transferred at once to a tiny home on a trackless, treeless, wind-swept prairie covered with waving grass. There was no shade of any kind to break the merciless rays of the sun through the long summer days; for long indeed they are up here near the 48th parallel as the sun rises about 4 A. M. and does not sink again below the western horizon until near 9 o'clock P. M.

It was mid-June when I first saw my prairie home and with the single exception of wild Roses there was scarcely a flower to break the monotony of the rank prairie grass that grew everywhere except on the slight rise of ground where the house stood — this spot contained too much alkali for the grass to make rank growth. I think I missed the protection from the hot, drying winds of summer, the biting, stinging ones of spring and fall, and the merciless ones of winter as much as, or perhaps more than the beauty of the old scenes.

A great determination grew to bring beauty and protection to my treeless home. The accompanying picture is a very accurate reproduction of the way the surroundings of my prairie home looked, a few scattered haystacks and some freshly turned sod being the only breaks in the great sea of waving green. No attempt was made at gardening that first summer, aside from some tiny beds around a couple of wild Rose bushes and a Bindweed that were growing on the small piece left unplowed about the house, and the moving of a few plants of Liatris scariosa (earth and all) that I found some distance away, to a tiny bed in front of the house.

The next spring twenty-four small Pines and Balsams from the moist, protected woods around my old home found their way to my new prairie home and also four little Lilac bushes. The evergreens were planted in four rows of six each with a Lilac bush at the end of each row nearest the house just where the flower garden now stands. They were only a few inches high, yet how woodsy they did seem and how proud and happy we were of the evergreen forest! The alkali soil and hot winds made short work of the evergreens, but the Lilacs grew right along and two of them are shown in the picture taken thirty years later (see above at left), one almost hiding the west wing of the house, the other, a still larger bush, just across the path.

A BIT OF PRAIRIE THAT HAS BECOME A GARDEN

"The first step toward the future garden was the ploughing of the prairie," writes Mrs. Heath, "and this is exactly as our home-to-be looked when I saw it first. Every tree and shrub has been planted by us. The picture above was taken just inside the front gate about 125 ft. from the house, unfortunately, however, in late summer when very few of the flowers were in bloom." (See page 225 for list of flowers in Mrs. Heath's garden)

For years we were an easy prey to the few nurserymen who came our way, and often dug into our slender purse to buy fairly large-sized trees and shrubs, only to have them sun-scald and die, and it was not until we learned to plant small sizes that we made any progress. The trees near the house are mostly Boxelder and Cottonwood. Some of them have now reached a height of 75 or 80 feet and the

largest one has a girth of nine feet at three feet from the ground. The majority of the trees shown in the picture were planted about thirty years ago. There are also a few White Ash and American Elms, and one large Norway Spruce may be seen at the center left of the picture. I shall not attempt to point out the other numerous flowers, shrubs, and trees also included, yet I shall mention only such plants as I now have growing in healthy condition on these grounds.

There are a few fundamentals that one must respect or one's labors are likely to be in vain. They are determination, deep digging of the soil, careful planting, watering and shading until the plants get thoroughly established, and lastly to see to it that all freshly set plants, or those of doubtful hardiness, go into winter quarters with thoroughly watered roots.

Once I had learned the secret of growing plants I was eager to test out everything I could get hold of and as I found that people from other parts of the country were willing to exchange almost everything for our native plants, I was able to do this with only the outlay of postage on the plants that I sent out. Most gardens in this section of the country were composed principally of Peonies, Irises, and Tulips; and though these present a glorious display while they last, I wanted my garden to be gay for as long a period as possible and I have succeeded far beyond my wildest dreams, for I now have blossoms from the time the snow leaves us in spring until it comes again in fall.

Flowers that Bloom from Snow to Snow

THE very first to bloom in early spring are the Heartsease, from which the modern Pansy originated. These start as soon as the snow leaves them and they bloom continuously until it flies again in autumn. Next comes Scilla sibirica, followed by Hepatica acutiloba; Polemonium reptans; Phlox divaricata; Violets in seven kinds; Iris (pumila, intermediate, and tall German); Bleeding Heart; Lily-of-the-Valley; Columbines of several varieties; Iceland and Oriental Poppies; Tulips in variety; Pyrethrum hybridum Peonies, the early officinalis and also late types; Hemerocallis flava or Lemon Lily, florham (an early tawny), Middendorfi (dwarf golden), fulva (single tawny), kwanso (late double, extra good), and Thunbergi, a very fine late; Delphiniums, elatum the most beautiful of all, hybridum the quickest to establish themselves, belladonna very beautiful, and grandiflora or Chinese Larkspur the best for dry, exposed locations; Lychnis fulgens or Fire-ball; Veronica spicata, a grand early sort, and longifolia, a good late.

Then one must have Lilies. I have tried a goodly number of them and have found that the speciosum, auratum, superbum, candidum, and canadensis (both the red and yellow) are not hardy, or at least not dependable. They will quite often survive the first, and sometimes the second winter, but grow weaker each year and usually fail to come back, on or sometimes even before the third year. Yet Lilies we may have, and grandly beautiful ones at that, for few plants can rival Lilium elegans robustum. I like them best planted among small shrubs or against the vivid green of some taller one. Then there are several other types of L. elegans, including Leonard Jeorg, a very pretty, large flowered yellow. Both the double and single Tiger Lilies grow to perfection in our climate, also the little Siberian Coral Lily (the Lilium tenifolium) that is exquisitely beautiful, and our own native Lilium philadelphicum.

Platycodon grandiflorum, too, will stay if you give it a dry, sandy location where water does not stand about its roots, and it is a beautiful thing when well grown. Achillea millefolium rosea or Crimson Yarrow and Achillea The Pearl are both reliable dry weather plants. Campanulas carpatica, and punctata, alliariaefolia, and grandis are all very desirable and very distinct. Heleniums autumnale and Riverton Gem; and Asters Climax, St. Egwin, and that grandest of all late bloomers, novae-angliae rubra. The latter is one of the very finest, absolutely hardy, very late perennials I have ever seen and no collection is complete without it.

Both the double and single forms of Lythrum roseum send forth splendid spikes of bloom for a long time, and the herbaceous Spiraeas, Gladstone, Filipendula, ulmaria. and palmata rosea are pretty in both flower and leaf. Trollius or Globe-flower will please the most fastidious. We must not forget the late hardy Phloxes in endless array of brilliant colors. Add to these the oldtime standbys like Sweet-Mary, Old-man, Ribbon-grass, Golden-glow, Sweet-rocket, Double Buttercups, Sweet-Williams, Pinks, Bergamot, Chrysanthemum leucanthemum; and you will have a garden that continues gay all summer.

Digitalis purpurea (Foxglove) and Canterbury-bells have failed me repeatedly. When I tell you that I have mentioned less than one-half of my collection you can readily see that I have succeeded in bringing both beauty and protection to my prairie home.

GARDEN VS. SAGE-BRUSH A MILE ABOVE SEA LEVEL

AGNES DOTY BELL
Vice-President of the Rocky Mountain Garden Club

The Making of a Montana Garden with Only Imagination as a Starting-point

TWELVE years ago the story of a Butte garden would have been the cause of much amusement, but Butte is coming into her own. The setting was always here; the mountains were always "round about." What better background for gardens could there be than towering peaks and granite rocks? What better soil than the alluvial wash from those same mountains? To be sure the seasons are short, but we are learning to counteract that by planting only things which make a quick growth and which withstand our late and early frosts.

A few short years ago the site of my garden was a sage-brush plain, the center of dust storms. Now it is in a neighborhood of homes and smiling gardens and as the green lawns increase, the dust storms decrease. Seven years ago we planted our first trees and started our lawn.

Of course there have been many disappointments. The hedge of California Privet, which was to have enclosed the whole place—with little white gates let into it at the entrances—refused utterly to grow. We now have a hedge of Cotoneaster acutifolia which has been recommended as the "best hedge for the Northwest." It is most attractive in the late summer and fall when it turns a rich crimson. Hollyhocks in a stately row against the little gray house were part of my dream plan, but, in reality, the plants fell prey to fuzzy black worms before they were half grown. Roses, too, seem not to like the conditions in our garden, although they grow beautifully for some people. I even know a wonderful hedge of double white Roses which are the glory of one place in our town.

The successes have been many, many more than the disappointments. The Canadian Poplars, Butte's own trees, have done exceptionally well. We planted several of these in a wide group at the back of the lawn and already I can see the beginning for a little grove. Last summer, one of these trees "wore a nest of robins in her hair" and the young birds bathed in our bird pool and grew fat on our cutworms. Near the house we have some beautiful Laurel-leaved Willows. I love these trees for their glossy dark green foliage and for their fragrance after rain.

Certain types of houses demand certain types of gardens—colonial houses seem to call for formal gardens and stately trees; Italian houses need sunken gardens and wide lily pools—the house in my garden being just a house of no pretensions does not seek attention for itself, but rather tries to hide, and bushes and vines are beginning to cling around it. On the chimney there are Virginia Creepers and Solanums, while Lilacs and

Honeysuckles crowd close to the walls. On the west side there is a border of Perennial Phlox and Daisies with hardy Garden Heliotrope (Valeriana), and growing between are spikes of Veronica; while as a border to the whole, there are low-growing plants, the annual Phlox and Verbenas in variety. The flowers and vines from the window-boxes—unassuming and filled each year with Rosy Morn Petunia and trailing Vinca—fall over and mingle with those in the border.

Probably everyone who has ever lived in the country carries in memory the picture of an old wayside fence, overgrown with vines and bushes. On one side of our yard we are trying to reproduce such a picture. Along the fence here are growing Honeysuckles, Lilacs, Spiraeas, Flowering Currants, Dogwoods, Syringas, Buffalo-berries, wild Roses, and Buckthorns. In the spaces, many of the taller perennials are established, while the smaller flowers find room to flourish in front, and in every place where they can find a foothold, Poppies flaunt themselves.

POPLARS AND SHIRLEY POPPIES IN MRS. F. M. BELL'S MONTANA GARDEN

"In every place where they can find a foothold, Poppies flaunt themselves," writes Mrs. Bell. "The Canadian Poplars, Butte's own trees, have done exceptionally well. We planted several of these in a wide group at the back of the lawn (plan below) and already I can see the beginning of a little grove"

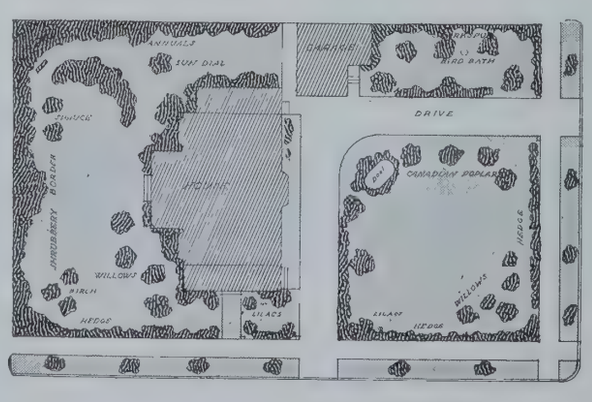
We tried to pay some attention to color in planting; not the strained effort after a "color scheme" which was the fashion a few years ago, but just an effort to keep away from each other colors which clash. I believe that no flower was ever ugly in itself, but I do think that very ugly combinations can be made by placing the wrong flowers together. Nothing could be worse than scarlet and magenta, for instance; but scarlet is lovely with blue, as scarlet Poppies and Cornflowers; and magenta is at its best with white and it blends with all purple flowers. So orange and yellow are good planted near blue. The shades of brown and orange and yellow, as in the Calliopsis and the African and French Marigolds, make a beautiful combination. But I like best of all groups and masses of white to tie all the hues together. For this I love the annual Gypsophila, or Babys-breath. The misty perennial Gypsophila is good, too. Let them take their way and they will sow themselves and drift in among the other flowers like clouds and soften the whole effect.

Since blue is the color of distance—and we want our grounds to look as large as possible—we plant blue flowers in the background. Back under the trees there is one space where nothing but blue flowers is ever allowed to grow, except an occasional pink or white to give accent to the blue. And when you make a list of blue flowers, it is surprising how many there are. Of course, the gorgeous Larkspurs head the list; then there are Cornflowers, Harebells, Bluebells, Flax, Anchusa, Veronica or Speedwell, Hardy Asters, Forget-me-nots, and Lobelias—to mention only those that grow in my own blue border. We try to keep the same color arrangements from year to year. Where pink flowers grow one year we plant them again. It may not be the same flower, but always something pink. Almost every gardener has a specialty and I have decided that ours is Sweet-peas. Nothing does so well for us, and it may not be out of place to tell how we grow them. In the first place, the bed is prepared by digging out the earth for about two feet and filling it with very rich soil and fertilizer. Bonemeal is very good mixed with the soil. Then the seeds are planted in a trench from four to six inches deep, and as the plants come up and grow, the earth is hoed in around them. In this way the roots grow far below the surface and find coolness and moisture. We plant the rows north and south so that the sun shines between them. In planting them, I like to blend the red and pink into the white, and the white into the lavender, and then end the row with the blue and purple.

Since we have learned that bulbs will grow out of doors in Butte, we have gained about a month of flowers that we did not have before. Now the floral procession starts in April with the Daffodils and Narcissus, followed in May and June by the lovely Darwin Tulips in company with Honeysuckles and Lilacs. With the beginning of July the wonderful hosts of annuals arrive and from then until heavy frosts come, the garden is never empty. And not forgetting the winter landscape, we have a few Colorado Blue Spruces, which have a way of catching the snow and decking themselves in white wreaths; and there are the Red-osier Dogwoods with their bright stems and, for contrast, the golden Willow.

Nothing adds so much to the joys of a garden as perfume, and in ours no old-fashioned, sweet-scented thing has been forgotten. There are Clove-Pinks and Sweet Alyssum and Sweet-peas and Petunias and Mignonette. But it remains for evening to bring out the full rich sweetness of the flowers. For a foretaste of heaven, step into the garden after nightfall, when the cool, sweet wind comes down from the "divide" bringing the scent of the Pines and all the wild mysterious perfumes of the Montana night, to mingle with the perfume of the Nicotiana and the Night-scented Stocks.

A garden without bird life would be a dull and lifeless thing, so we have several bird-houses and two bird-baths, and besides these a home-made pool, popular with both birds and frogs. Each year, too, we are trying novelties, without which gardening might become an old story and lose some of its charm.



PLAN OF MRS. BELL'S GARDEN

Described in detail in accompanying article

AMONG OUR GARDEN NEIGHBORS

EVERY GARDEN MEANS A HOME

SALUTE TO THE WEST

FROM the Ohio River westward to the Rockies lies a great territory where in recent years an awakened spirit of gardening has been finding practical expression with increasing intensity. To this area of the Central Plains and the region abutting thereon, the contents of this number of THE GARDEN MAGAZINE are especially dedicated—an effort to interpret something of the peculiarities of the region both to those who dwell in it, and to those other gardeners on the two coasts and the warm south who garden under somewhat different and often easier circumstances. Gardeners are always eager to have an understanding of one another's trials and problems, a friendly interest in their friends' perplexities that leads to the larger fellowship which finds so abundant expression in the garden.

After all, gardening is not an exact science, and though much may be accomplished through a knowledge of the controlling factors of heat, light, rainfall, etc., yet the ultimate, the final solution to the problem in planting is very largely to be reached only by experiment. The several articles and picture presentations in this issue cover some eighteen states. They breathe the note of achievement and triumph after trial and tribulation, and through all the contributions there speaks the great lesson for all gardeners everywhere, that the local problems must be solved locally.

We believe that this present collection of material is unique and shall naturally be glad to learn how our readers receive it. Our thanks to those contributors who have helped in this presentation of the garden triumphs of the West; and may the good work go on!

THE INHIBITING EFFECTS OF QUARANTINE

AMONG those who attended the two great flower shows of the spring—New York, N. Y., and Cleveland, Ohio—there was a general observance of the absence of certain big plants of decorative quality that lent grandeur and dignity to the shows of yesteryear.

Some felt all this but did not pause to realize the underlying cause; others freely expressed their views that the effects of Quarantine 37 were at last being publicly manifested. Gone are the formally decorative Bay-trees, gone the stately Palms, gone the gorgeous Azaleas and Rhododendrons—to mention only a few of the striking vacancies—which were formerly imported from European nurseries for our delight, and some cannot be grown here for one or two generations.

These are stern facts which are changing our horticulture. We have stepped backward seventy-five or a hundred years, and what the line of advance shall be it is vain even to guess at now. But we need not be blind to the limitations which have just begun to be forcibly demonstrated to the people at large, who, however, may never understand. Our ornamental horticulture is to-day where the world horticulture stood just after the Napoleonic era, when Europe stretched out its hands to all quarters of the world to gather in the glories of the earth for greenhouse and garden. And so began the great age of modern horticulture. The New World after its Great War also looked into the wide world not to see what it could add, but universally, to exclude. Our horticulture "advances" backward!

One of our GARDEN MAGAZINE family of readers who enjoys the world-wide interests of gardening, looking homeward from across the seas draws an interesting, imaginative picture:

My copies of the magazine forwarded to me from home, are reaching me here in Southern France and are giving me, as usual, much food for reflection—pleasurable or otherwise, as the case may be! In the letter in the December issue, under the caption "Does Danger Lurk in Seeds?" I have read of the new ruling of the Federal Horticultural Board, prohibiting the importation into the United States of the seeds of perennial plants! Far be it from me to comment on the decrees of an all-wise and farseeing government—they are indeed inscrutable—but would not the Federal Horticultural Board save themselves a good deal of trouble and their fellow-countrymen (I had almost written "their victims," in a moment of temporary aberration!) a good deal of anguish if they issued a blanket law forbidding ornamental horticulture, once for all? Then there would be no question of transgressing by introducing a few seeds or bulbs inadvertently ordered or purchased under the mistaken idea that they would not only give innocent pleasure to the introducer but that they might inspire other garden-lovers to go and do likewise. All our land then would be safeguarded against any dangerous aliens in the form of flower, fruit, or tree. In due course of time we might hope to see even what are now green lawns (harboring who knows what possible perils?) changed into nice safe areas of asphalt.

All winter, here on the French Riviera, I have been delighting not only in finding again the flowers which I remember of old in this land of enchantment—the Anemones and Irises, the Brooms and Heaths, the Hellebores and Arums of these Mediterranean hillsides, but I have been thinking how many of them might perfectly well be grown at home with the winter protection of a coldframe perhaps, and as I have studied the charming gardens of Cannes, of Mentone, and of San Remo—many of them a mere series of shelves or steps on these steep hillsides (I am speaking of the small gardens of modest houses and of hotels, not of such great places as Eilenroc at Ca Antibes or as the Hanbury Garden at La Mortola)—I have realized how much we in the United States might learn and how deeply we might profit by such study, were we permitted to do so.

Sometimes I feel as if the art of gardening were still in its infancy in our country and little enough being done to encourage it! Are you quite sure that THE GARDEN MAGAZINE itself may not be suppressed as seditious and undesirable in that it inspires unholy ambitions and longings for a wider knowledge of garden lore and a greater variety of flowers and fruits? As Miss Agnes Repplier so dispassionately and discreetly observes in the February *Atlantic Monthly*, "Nothing in the way of inhibitions is impossible to the United States!"

GET READY FOR THE INTERNATIONAL GLADIOLUS EXHIBITION

GLADIOLUS growers will be interested in visiting the trial collections at Guelph, Ontario, on the Agricultural College grounds, where the varieties are planted in plots clearly named. All this is in anticipation of the International Gladiolus Exhibition August 20th and 21st. The exhibition schedule of the

Canadian Gladiolus Society, which holds its third annual meeting in association, is available from Prof. A. H. Tomlinson, at the college. It strikes a new note for Gladiolus shows in the greatly enlarged scope of color definement.

THROUGH the generosity of Mrs. Charles H. Stout, The Garden Magazine is privileged to announce the offer of a $50 cash prize to be awarded for a new and original poem on the Dahlia.

Verse submitted in this competition must be of joyous mood in any lyric form, but not exceeding six stanzas in length. Competition closes October 1st, 1924, and all entries must reach The Garden Magazine not later than that day.

Contestants may submit any number of entries, with the name and address of the author plainly marked on each one, addressing them to the Dahlia Poem Contest, c/o Editors of The Garden Magazine, Garden City, N. Y.

THE OPEN COLUMN

Readers' Interchange of Experience and Comment

So many interesting letters have come in from "garden neighbors" throughout the West and Mid-West that it has not been possible to include them all in this one issue. A splendidly constructive list of "Forty July Standbys for the Indiana Garden", "Choice Begonias for Illinois", "Scilla from Seed in Wisconsin", "Pentstemons which Flourish in Utah", comments and queries from Nebraska, Ohio, etc., will follow in June and ensuing months.

St. Dorothea Makes Herself at Home in Iowa

To the Editors of The Garden Magazine:

PERHAPS you'll be interested to hear that the delightful article by the Rev. Joseph Jacob on "Dorothy—Patron Saint of Gardeners" in your February issue has inspired a neighbor of mine, Mr. Charles O'Donnel, to carve St. Dorothea in wood for his Rose arbor. Also this same neighbor has carved on a wooden panel to go over his garden gate the little verse by John Oxenham "See this my garden" etc. under the picture on page 329 of the same issue.

On March fifth of this year a Mid-Western Peony and Iris Society was organized here in Des Moines and growers from Iowa, Illinois, Missouri, Kansas, and Nebraska have already indicated their interest in this movement, the chief objects of which are to promote the holding of shows (beginning in 1925) and to coöperate with the Iowa State College in establishing a test garden.

A state Gladiolus Society has also been recently launched but, not being a member, I am not familiar with the details of this organization. —Janet Du Mont, *Des Moines, Iowa.*

An Illinois Oasis Created in Three Months

To the Editors of The Garden Magazine:

NO DOUBT it grows tiresome receiving letters from amateur gardeners exploiting the merits of their little gardens, but I just can't resist sending you the enclosed snapshots showing the progress of my backyard garden in five months. [On the contrary; the more we hear from the greater our pleasure.—Ed.]

The first picture was taken April 1st, 1923. It shows nothing but clay, and my husband trying to get rid of some of it. The other was taken July 15th of the same season and shows quite a transformation with a flourishing display of Garden Magazine's gift of twenty five Gladiolus bulbs around the bird-bath.

My husband and I did all of the work ourselves and before we subscribed to Garden Magazine in March of last year we didn't even know a perennial from an annual. We live just a block from one of the busiest sections in Chicago and our friends say our little colonial home and garden are like an oasis in the desert.—Mrs. John H. Wulff, *4177 Irving Park Blvd., Chicago, Ill.*

What Kansas City, Missouri, Is Doing for Its Children

To the Editors of The Garden Magazine:

I WOULD like to tell your readers of the "Kansas City Children's Garden" maintained by the Kansas City Gardens Association for the children of our city and which had its origin in the account of the Avenue A gardens in the March, 1922, issue of Garden Magazine.

A vacant lot 75 x 125 ft. was loaned and laid out in individual 10 x 12 ft. plots with 3 ft. paths between. Each child is provided with a hoe, rake, and seeds. There is a general supervisor to instruct them in the fundamentals of gardening, preparation of the soil, how to supply and maintain the chemicals needed for the growth of plants, how to plant and cultivate vegetables, insect enemies and how to control them. These lessons are taught both by talks and practical work, and the children are given a short history of the plant and its relation to other plants, also a simple way to prepare each vegetable for table use.

The young gardeners are encouraged to exhibit specimens from their gardens in the annual fall show given by the association and prizes are awarded for the best collection. This adds much zest and desire to produce finer products. In the summer the youngsters are entertained with a picnic, and on Christmas Eve a large tree is erected in the garden with gifts for all who had work there during the season. The total cost of maintaining the garden for the entire season of 1923 was $137.10. The Association plans to establish these gardens in units in all the congested districts of the city.—Mrs. Effie L. Anderson, Supervisor, *6921 Agnes Avenue, Kansas City, Mo.*

A Bird-Bath Made by a Michigan Gardener

To the Editors of The Garden Magazine:

LONG a reader of your magazine and now as a subscriber I have found much of interest in your pages.

In the winter of 1923 my husband and I decided to build a bird-bath of concrete for our city garden. Our basement, being light and large, well afforded a corner to such work which, despite being somewhat dirty, really added a youthful zest to our lives by reminding us of our "mud pie" days. The bowl or bath proper was moulded around a shallow dishpan filled only half way up, and the column was made in a large-sized mailing tube of cardboard. The circles of cement which bind the bath to its pedestal were also made in cardboard. I am sure any novice could construct a bath as easily as we did.

It stood the summer well, and has afforded us many a happy hour, both in its making and later when placed. It is in direct view of the house and many birds frequent it. The surrounding bed is in blossom from early spring, with the Clara Butt Tulips and Kochi Ivies to the summer annuals, blue Cornflowers and salmon-pink Zinnias with Sweet Alyssum.

It was a special pleasure to see in print some months ago prize-winning flower arrangements, particularly as one honorable mention was awarded to my present home, and another to Miss Hayden of Kansas City, an acquaintance.—Mrs. H. L. Hurst, *Pontiac, Mich.*

In Defense of North Dakota

To the Editors of The Garden Magazine:

EVER since the letter of S. C. Taylor of Columbia, S. D., appeared in the June Garden Magazine, I have been waiting to see whether someone would not appear as a champion of the inhabitants of that immense territory stretching from the Mississippi to the Cascades, and refute his absurdly comprehensive accusation that in all this sweeping expanse he is the only person who has a flower garden. Such a statement is too foolish to merit refutation, perhaps, but its bland injustice sort of "riles" a fellow, anyway.

Having noted replies in a recent G. M. from Oregon at the Cascades end of the territory mentioned, and Iowa at the Mississippi border, I can no longer resist the temptation to rise up and take a verbal wallop at him from nearer home. My home is less than 40 miles from Columbia, right here on the Dakota prairies that he so cruelly maligns. And though like Elijah of old, he is convinced that he, only he, is left who has not bowed the knee to the Baal of "grains and livestock," it should need no miracle to show him many times seven thousand of his neighbors in whom the utilitarian has never crushed out the aesthetic.

It would probably sound like vainglorious boasting for me to expatiate on my own garden of Gladiolus, for instance, whose spikes last summer grew to a height of more than 5 feet, and a number of whose single blooms measured 6 inches and more across. Even in St. Paul, the Eden so warmly sung by this voice crying in the wilderness, where I lived for several years and still visit nearly every summer, I have never seen their equals.

Nor would it be seemly for me to dwell at length on the beautiful park in the heart of our little city, with its plantings of various shrubs, its winding walks, and the cool shade of its trees on the grass, where on the hot summer days one can always find groups of grateful transients or citizens resting and refreshing themselves. Ask any of them if it is a "mere planting of trees with a few very common shrubs!"

Before I came to Dakota, I pictured it much as Mr. Taylor suggests it—bleak, wind-swept prairies stretching endlessly to the horizon, a

Neighbor Gardens of the West and Mid-West

IRIS TIME IN INDIANA

Peonies in their creamy whiteness, their tints of pink and carmine, make an incomparable foil for the lavenders, purples, and yellows of Iris with a dash of Larkspur blue as here in the garden of Mr Franklin B. Mead at Fort Wayne

SUMMER IN A MICHIGAN GARDEN

Blue Cornflowers, salmon-pink Zinnias and Sweet Alyssum make a gay tangle about this sturdy bird-bath of home construction (see text on opposite page) in the garden of Mrs. H. L. Hurst at Pontiac

A LITTLE NORTH DAKOTA PARK

Which fulfils its peaceful mission of rest and shade in the heart of the small city of Oakes

AN ILLINOIS OASIS MADE IN THREE MONTHS

"The garden was begun on April first of 1923 (see left) and by July fifteenth of the same season," writes its owner, Mrs. John H. Wulff, "showed quite a transformation with a flourishing display of GARDEN MAGAZINE's gift of twenty-five bulbs around the bird-bath (shown above). We live just a block from one of the busiest sections in Chicago"

desolation of waving Wheat. To one born in the heart of Minnesota's ten thousand lakes and raised among its forests and winding streams, the prospect was disheartening. "Who enters here leaves beauty behind" might have quite accurately expressed my thought. It was a dismal prospect.

On the contrary, however, I found the broad bosom of the prairie dotted with groves, which differed from those in the farming regions of Minnesota chiefly in that they were the result of painstaking toil and care on the part of the hardworking pioneers who had planted and tended them, instead of being the free gift of nature. Here all nature seemed to conspire against the establishment of trees, and the settlers had a mighty battle, but they won out. After hearing their stories one would hesitate to accuse them of lack of interest in everything except grains and stock.

I built me a home here. Long before it was done my neighbors came bearing gifts. The list probably is not complete, but here are some of the things they gave me: Lilacs for a screen hedge along the alley; several varieties of Rugosa Roses for a screen at the side of the house, by the garden; bushes of the old-fashioned white and yellow hardy Roses, and a number of larger-flowering June Roses brought from Boston and acclimated here by one of the earliest settlers; an Elderberry bush for a clump in the corner of the garden, to attract the birds; Currant and Gooseberry bushes to more than supply our desire for their fruit; Asparagus roots to start a small bed; flowering Currants; a Beta Grape vine; 6 varieties of Dahlias; 5 varieties of Iris; bulbs of several varieties of hardy Lilies; Lilies-of-the-valley for the north side of the house; Aquilegias; Delphiniums; hardy Phlox; Violets; Clematis for the porch. A number of trees were also offered, but my lot already had on it a clump of bearing Plum trees and so many white Oaks and Box-elders that I had to give away a number of them. To the various shrubs, etc., that were given me, I have since added many other varieties from the nurseries to round out my landscaping scheme.

The point I started to make, however, was not in connection with my own plantings, but rather to show what must have been already accomplished by my neighbors along this line as evidenced by their ability to give me all they did. Their spirit of generosity, moreover, is proof that they are geniune, and not veneered gardeners.

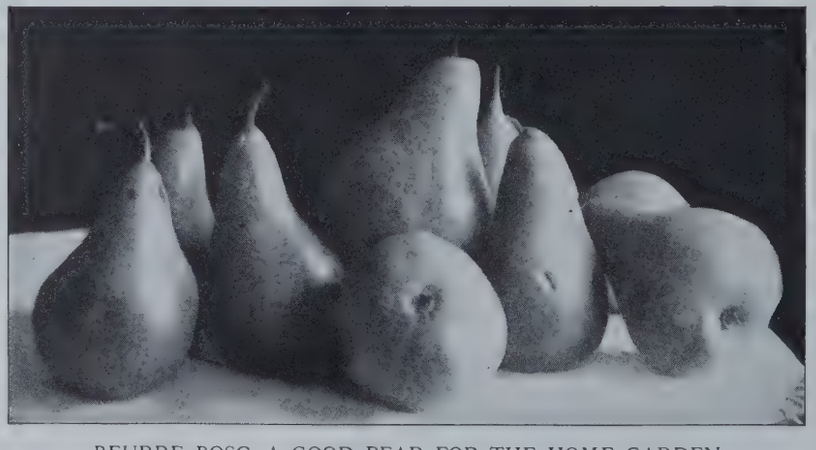
As to the farmers, I could name many in this community who have spent much of both time and money in beautifying their homes with plantings of trees, shrubery, and flowers. There are very few indeed who have made no attempt to thus improve their surroundings.—J. C. Gould, *Supt. of Public Schools, Oakes, N. D.*

A Perfect Pear for the Home Garden

To the Editors of The Garden Magazine:

ONE February about ten years ago as I walked past a fruit store in Chicago my eye was attracted by some fine looking pears, russet in color, large, and of unusual shape. On inquiring the name was told that they were "California pears." They proved to be well ripened and of most delicious quality. I determined to learn what variety I had eaten and, if possible, to grow some in my home orchard. After consulting a number of catalogues, I decided they were Beurre Bosc and ordered a tree.

The tree was planted seven years ago in ordinary, good, rather heavy orchard soil. It grew vigorously, developing into a tall but well proportioned shape, and came into bearing in 1922. The first crop was a fine one of large perfect fruit, nearly a bushel in all. As the pears neared maturity the tree was an attractive sight, the limbs bending under the load of large russet fruits which were harvested before being quite ripe (about the last of September), wrapped in paper, crated, and taken to cold storage at once.



BEURRE BOSC, A GOOD PEAR FOR THE HOME GARDEN

As large or larger than the Bartlett, fine-grained flesh of superior quality, skin rich yellow mottled with russet, excellent keeper (see accompanying text)

I desired them to be at their best for Christmas, so they were taken out of storage about the middle of November. I found them hard and essentially as when placed in storage. They were put in a garage with an average temperature of about 40° to 45° and thus ripened up gradually, being in prime condition at Christmas. Bringing them into the house temperature for two or three days would ripen them much more rapidly. It has never been my good fortune to eat better pears than these proved to be. The pear is quite versatile as to time of ripening, for if picked when nearly ripe and placed at once in cold storage it can be kept for months; in ordinary cellar temperatures it ripens rather quickly. Thus it is possible to control the time of ripening and have the fruit over a long period.

The tree is a strong grower and has not been as much troubled with blight as some other varieties in my orchard. I planted another tree last fall and am looking forward with pleasure to its fruiting.—Norman C. Yarian, *Cleveland, Ohio.*

Some Flowers for Indiana

To the Editors of The Garden Magazine:

EVERYONE seems to admire my 20-year-old Gypsophila paniculata which reaches three feet across these last years when in bloom and has a root like a radish. I find Ox-eye Daisies very satisfactory scattered here and there in the border, also the Feverfew; both these self-sow. The Blue Lace-flower is too tender to do well in the ground, though the three I have potted are blooming—but who wants to pot annuals? I find Carduus or Spotted Thistle (annual) beautiful to use as a foliage plant and it will self-sow.

For the first time in the twenty-five years I have been growing Peonies seeds have formed on my Peony officinalis rubra as for the first time other Peonies were simultaneously in bloom to fertilize it.

I began planting Peony seeds ten years ago. Many seedlings perished when small, but I've had eighteen plants mature to bloom and, curiously enough, only three came single though most of the seeds sown were from single varieties. Some of these Peonies have been much better than many of the named varieties I have bought. One bloomed for the first time last year giving a flower eight inches across despite the fact that it was not disbudded and never cultivated. I consider that pretty good. Just how long ago it was planted I do not remember, but have had at least one Peony bloom at three years of age. —Mrs. Cora Jewell, *Darlington, Ind.*

July Bloom in Nebraska

To the Editors of The Garden Magazine:

REPLYING to the appeal of Cora Jewell in February here are the names of some perennials which bloomed in my garden in July, 1922.

July 2nd: Anchusa, Dropmore variety; Coreopsis; Gaillardia; Shasta Daisy Alaska; Pentstemon Torreyi; Pinks; Perennial Peas; Prickly Poppy; Hollyhocks, double and single; Delphinium seedlings; Hemerocallis; Achillea The Pearl; a red Lily; Hyacinthus candicans.

July 16th: Platycodon, blue and white.

July 23rd: All the preceeding, also Lythrum roseum; Helenium Riverton Beauty; a yellow Evening Primrose; Tiger Lilies; and the following in Perennial Phlox, Europa, Elizabeth Campbell, Independence, R. P. Struthers, Rynstrom, Miss Lingard. The following Roses also bloomed July 23rd: J. B. Clark, Ulrich Brunner, Edw. Mawley, Paul Neyron, Queen of Edgely, La France. The small shrub Spiraea Anthony Waterer and a similar one with white flowers bloomed during July. Snowberry opened its tiny pink bells the latter part of July.—Mrs. Ernest Frisch, *Cook, Nebraska.*

REFLECTIONS FROM THE FLOWER SHOWS

The New York International and The National at Cleveland Attract a Hundred and Fifty Thousand Garden Enthusiasts

THE coming of two great spring Flower Shows with a separation of only a week from the closing of the first in New York and the opening of the second in Cleveland brings them into close relationship with each other, and comparisons are inevitable.

New York had the advantage of permanent establishment. It was the eleventh successive show in the series and it had the further éclat of the metropolitan association and of being within easy reach of large groups of population who are seemingly more and more interested in gardening affairs each succeeding year—There were 100,000 visitors this year.

The Cleveland event drew an attendance of 50,000 and was the sixth National Flower Show to be conducted under the National Flower Show Committee of the Society of American Florists and Ornamental Horticulturists. Previous cities visited in this series and in order are Chicago, Boston, New York, Philadelphia, Indianapolis. The National Flower Show moves from city to city with the object of stimulating local interest and in the hope of leaving behind it such results as will stimulate the community in local horticultural activities in subsequent years. Thus indeed it was that the New York Show was established. The permanent annual results have not been manifested so definitely elsewhere.

Creating a Unified Effect

THIS year's Cleveland Show surpassed in perfection of detail, in arrangement, in spectacular display, and had a lively support of the local horticultural interests of all kinds.

Gradually a great change has taken place in the appeal that is made to the general public through the medium of a flower show. Not so many years ago the exhibits were staged for the technician and the classes of the schedules were drawn up entirely on the basis of cultural superiority of sixes or dozens or twenty-fives or whatever it might have been of plants or cut flowers with a few groups of plants of varying character arranged in conventional mass effect. More spectacular presentation has become ascendent, culminating in the magnificent picture presented on the floor of the Cleveland auditorium.

In order to secure a comprehensive and unified result the services of a competent landscape architect were engaged to supervise the arrangements, and Mr. A. D. Taylor's contribution in this respect should not pass unrecorded for its unifying influence was distinctly felt. The flower pattern of the exhibits viewed together as a whole from the balcony was a picture of transcendent beauty, balance, and harmony.

On the stage against the horizon of graduated blue Mr. Roland's Acacias made a lively piece of atmosphere that lured the visitor the moment he stepped through the entrance door. Nothing could have been finer than the combination of the splendid material and the appropriate setting. The exhibits on the floor areas were in the form of "gardens" that have supplanted the old-time exhibits in serried ranks. This is the great change in the modern standard of flower show display.

The materials are used in arrangements that simulate, so far as the seasonal conditions and artificial circumstances will permit, something of what might be found the other seasons in the actual outdoors. Of course, the whole thing is artificial, inevitably so, whether we have bulb gardens crowded to excess with forced bulbs that would normally bloom weeks apart or naturalistic rock-work effects planted with forced shrubs and herbaceous plants the like of which can never be seen together in the outdoors under natural conditions. As a matter of fact, these gardens are suggestive merely; they are not reproductions of actualities. Seemingly, however, this fact has not generally penetrated the minds of all the judges upon whom fall the onerous duties of adjudicating the relative merits of the various displays. Possibly no group of judges would ever give a universally approved opinion.

For our part we confess to a complete mystification on the decisions of both the New York and the Cleveland Shows. But can it be helped so long as the schedules do not define exactly what is required? It is perhaps unfair to the exhibitors themselves to permit a formal arrangement of bulbs in one place, a lawn effect of shrubbery borders and garden vistas in another, and rockery construction in yet a third, to be pitted and balanced one against the other. The preference must inevitably be given to the one exhibit that most nearly touches the type of garden the individual judge is most interested in. Just as well put up a horse, a chicken, and a clock, and ask "Which is the most useful?"

From our point of view in the serviceable application to those who would read this magazine there were two exhibits among the Cleveland "gardens" that had especial educative value, that carried a message in garden design and utilization of plant material:

(1) Knoble Bros. Co. staged an exhibit of a thousand square feet, the allotted space being only seventeen feet wide, that was a masterful demonstration of the possibility of a pictorial and workable garden that could be put into any suburban plot or typical city lot. It was a gardener's garden, a place where any new fancied plant could be introduced without upsetting the balance or destroying the harmony of the whole. It was a garden of a sinuous winding border; the central lawn space having stepping-stones leading to a little pool beyond which the ground rose a few feet from a shaded retreat with an appropriate garden seat. Accent points were given here and there by the use of upright Yews, etc. One single Silver Birch gave a light and elegant touch to the foreground of the little pool and rockery.

(2) Conceived on a grander scale for a larger place was the magnificent rock-work exhibit of the Wayside Gardens. It was staged on a practicable scale and everything was in full size—no delusions or deceptions as to perspectives, and the rich amount of plant material used was a revelation in possibilities, providing a forcing house is available. This was an evenly balanced unilateral plan with a deep arched grotto in the center and perhaps its exact symmetry hurt the naturalistic minds of some of the judges. At all events this fine demonstration and educational exhibit was completely passed over in the awards.

Let it be here submitted that the National Flower Show Committee should take definite steps toward proper labelling of the individual plants in the exhibition, if the object of that committee, as we suppose to be the case, is truly educational—if it is to carry an educational message to the public instead of mere entertainment. Spectacular, chromatic arrangements of line and mass undoubtedly have a transient appeal to the senses and they entertain for the moment, but they do not carry the message of the garden any deeper. They leave very little actual impression and no instruction.

Bobbink & Atkins met this valiantly in their rock garden exhibit in New York in having a legible number attached to each plant used in the rock garden and the name on a check list in the foreground so that all who would might read.

Some Noteworthy Entries at Cleveland

OF THE other "gardens" at Cleveland, the majority were arrangements in the conventional type of forced bulbs or of forced Roses. One with a diminutive house front produced an illusion of reality that was indeed charming. These were all pretty pictures, but they had not much beyond that.

Two exhibits of flowering plants from two local private gardens are worthy of note. Mrs. F. F. Prentiss contributed a pictorial mass of forced shrubs, Azaleas, Rhododendrons, Cherry, Dogwood, etc. in rich variety and of fine quality, arranged somewhat formally around the central miniature lawn on which was a MacMonnies' Piping Pan in bronze.

From Mr. F. E. Drury's garden came a group of greenhouse flowering plants of fine cultural quality, Primroses, Daffodils, and the like.

The Independence Nurseries contributed a water garden, and the Garden Lover's Club a woodland glade and pool thickly planted with Narcissus and Forget-me-not. It carried its message convincingly.

IN NEW YORK the gardens differed not greatly from those seen in previous years. Bobbink & Atkins massed in this manner a display of Azaleas in both Belgian and Kurume types. They well displayed the stocks of these things that are now available.

F. R. Pierson had a sedate exhibit that was perhaps seventy-five per cent. practical, by which we mean that it could almost be reproduced in actuality in both design and material. It won the Garden Club of America gold medal on that account.

John Scheepers Company staged in both cities gardens of similar character. The same material and the same general design being adapted according to the space and situation. The effective bloom of Hyacinths against a background of Cedars and pergolas had an appreciable atmosphere of mystery and repose that attracted universal attention, and won its creator the highest award at the Western Show.

Of Orchids and Other Things

ORCHIDS were seen in surprising quality in both exhibitions. Such specialists as Lager & Hurrell, and E. H. Roehrs made noteworthy contributions, and in New York Mr. Clement Moore's collection of Cattleya Hybrids was an education. Mr. A. C. Burrage sent from his rich collections in Massachusetts a notable display to Cleveland, and from Pennsylvania came the prize-winning Laelio-Cattleya Joseph Manda, of Mr. F. E. Dixon. Mr. Pooley's contributions should also be mentioned.

Of plants odd and unusual or specially interesting there were really few to be seen. Such things as are in collections are not brought out by the individual private owners and, of course, the bars are up against their introduction in ordinary channels. The source of supply is completely cut off and nothing can be had. However, from W. A. Manda's collection in New Jersey were a number of fascinating specimens for the plant lover, things rarely seen—a number of varieties of English Ivy, some few species of the Cactus family, a cool greenhouse vine with violet-blue flowers somewhat resembling the flowers of our native Fringe-tree although not related to it, Petra volubilis. Around this display many an old-time gardener hung in rapt reminiscence renewing his acquaintance.

In both the Shows the cut flower displays were of the standard to be reasonably expected on such occasions.

Sweet-peas from Burpee were seen both East and West. Charles H. Totty had new Roses; and in New York the display of bulbous plants was of an unprecedented quality, especially Van Waveren's Narcissus and the general display of Stumpp & Walter.

The new Rose, Mrs. Calvin Coolidge, was appropriately displayed with masterly skill in both places (F. R. Pierson); a yellow sport from Ophelia, and as that Rose has already proven its merits, both under glass and in the open, we can confidently anticipate that this new yellow will be a real addition to our garden varieties. It is a clear full color yellow Rose of characteristic Ophelia build and size. In the cut flower trade it has shown special lasting qualities which is an interesting attribute and, as seen at both these exhibitions, the color became intensified instead of fading as the flowers unfolded day after day and as they aged. Mrs. Calvin Coolidge comes with all the promise of being a successful and brilliant garden Rose. At Cleveland there was a ceremonial performance of "christening" this newcomer by Miss Ruth Stone, ex-President of the Women's Civic Club.

Constructive Contributions by the Garden Club of America

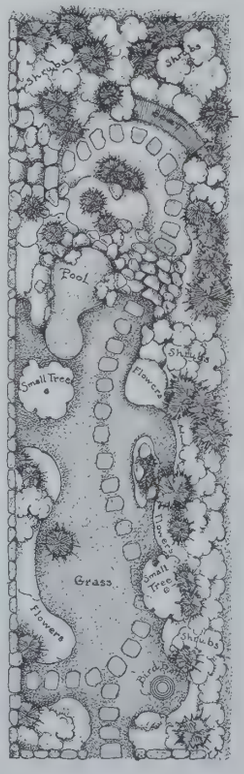
WELL, the man that gets them things together has got brains!" This admiring comment of a spectator whose capacity for appreciation had apparently outrun his erudition was called forth by the fascinating array of miniature model suburban homes staged by the Garden Club of America at New York. The three problems presented—(1) the planting of a 50 x 125 ft. lot for beauty combined with economy of initial cost and economy of upkeep, (2) the planting of a 125 x 150 ft. lot with chief emphasis on beauty and no special restriction as to cost, (3) community planting for well-planned groups of two, three, or four houses—were solved in ways so various and so attractive as to be a forceful and illuminating object lesson in the possibilities of the small place and banish forever the notion that little yards need be either monotonous or unlovely.

In these days of rapidly building suburbs and congested communities no topic more vital could have been chosen, and the Garden Club of America is to be congratulated on its constructive contribution to a much neglected and widely important phase of gardening. A very practical addition would be supplementary lists of suitable plants for suburban gardens in the different sections of the country where climate and conditions of growth are so diversified, and it is hoped that next season's Flower Show will bear fruit in this direction also.

Most happily the prize winners of the New York competition were sent to Cleveland where they did not attract so much attention, curiously enough, thus showing that there is cumulative solace in shows.

Another interesting feature fathered or, perhaps more correctly, mothered by the Garden Club of America was the treatment of "A Niche in a Garden Wall." The walled garden, long appreciated on the Continent for the seclusion and shelter it offers to plants and humans alike, is beginning to captivate American popular fancy, and even a quite small garden increases immeasurably in charm by the creation of a focal point. The wall may lift or dip a bit, may curve back a little or jut forward, may do any of a number of things which offer an engaging setting for some choice piece of statuary, for a bold blue vase, for a tiled or terra-cotta fountain. Considerable divergence of manner was evidenced in the rendering of the particular problem in question—a niche 5 ft. deep by 9 ft. wide, wall 8 ft. high—ranging from the pleasantly convivial grape and bacchante motif of the East Hampton Club to a serious and delightful madonna and child with pigeons, votive bouquets, and a generally Old World flavor (Garden Club of Philadelphia).

It is really a pity, however, that the genuinely fine bronzes in some of the other treatments were not more adequately set—simplicity and a harmonious background are essential; the statue must have a chance to speak for itself, to reach the spectator's eye and consciousness without conflicting distractions and all planting must be subdued to meet this end—just for a second the garden submerges its appeal in order that this other beauty of man's making may be enhanced. Among the group of exhibits, that of the Garden Club of the Oranges—with a lovely bronze "Narcissus" (by Enid Yandell) bending forward over a little semi-circular pool brightened by darting goldfish whose gold was repeated in the long pistils of surrounding Callas offset by Ivy and Cedars—seems most nearly to have met this ideal.



SCHEME FOR AN ELASTIC GARDEN

This sketch reproduces the salient features of the garden exhibit of Knoble Bros. Co. at the Cleveland show. It is adaptable to a variety of little garden plots by expansion or reduction in either direction. The shrubbery masses—in which Rhododendrons, Pieris, and Azaleas are included with deciduous flowering kinds—are fronted by irregular areas of herbaceous plants, annual or perennial, and a new acquisition could be added without deranging the arrangement in any way. The evergreens (shown in shaded line) are Yews, Retinisporas, and such like. These effectively give accent and elevation without overpowering the scale

Tidings of Great Joy

ALTOGETHER the New York International Flower Show as an annual occurrence can scarcely be overpraised, whatever its lacks or lapses from year to year—and this season's display as a whole seemed scarcely up to that of its two immediate predecessors—or whatever the motive power that "puts it across." Mutterings about "commercialism" and disparaging contrast between American "almighty-dollar methods" and British "pure love of horticulture" occasionally make themselves heard, justifiable comment perhaps but after all of little moment. The spectator has no curiosity as to motives, to him the spectacle is everything, and literally thousands of people crowd in each year from bleak March streets, drawn by the color and scent and hope that so much massed loveliness yields in generous measure. The connoisseur finds a new jewel or two to set in the crown of his especial garden treasure, whether it be Roses or Orchids or some humble little Sedum to lie between flagstones; the child gets his first large lesson in plant life, as fascinating a kingdom for the imagination and far saner than the tainted realm of "movies"; suburban dwellers, anxious to lift the little plots, which are home to them, out of commonplaceness into beauty, make profitable voyages of discovery. And of all the pilgrims to the yearly feast of flowers none are more touchingly eager than the old folk one sees being pushed about in wheeled chairs with a sort of reflected springtime glow on their age-weary faces. Truly no city can afford to be without its Flower Show!

The National Flower Show Committee has decided upon annual exhibitions instead of biennial as originally scheduled and has already completed plans for two years ahead selecting Kansas City, Missouri, for its 1925 show; and those close neighbors, Minneapolis-St. Paul, Minnesota, for 1926.

Like its XIV Century prototype, its walls in gesso embellished with beautiful frescoes, each detail of this room's decoration and appointments is reminiscent of one of the most brilliant periods in Florentine history

The Age-old Art of Interior Decoration

A FINE interior, such as the Sleeping Room pictured above, is truly a work of art—its conception demands the trained judgment of the *connoisseur*. Its creation, however, requires every facility for acquiring or producing the furniture and decorative accessories without which so distinguished a background would be devoid of interest.

¶ Whether your predilection is for an interior endowed with the historic charm of a mediaeval *palazzo*, or you prefer the atmosphere of livableness and quiet elegance associated with the houses of XVIII Century France and England—this establishment may be depended upon to carry out each detail of decoration and furnishment to a successful conclusion.

¶ No finer furniture has been produced in this or any other age than the beautifully wrought cabinetry on view in these Galleries, where you are not only welcome to the suggestions of experienced decorators but are free to stroll about and derive as much inspiration as your leisure permits.

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Rare, indeed, is the rose garden of unblemished beauty. All too frequently the invasion happens overnight and before the marauders are discovered much harm is done. The only satisfactory way to get rid of these nefarious Rose Bugs is to kill them when they appear. This not only eliminates present loss but prevents them from breeding. Far-sighted gardeners now spray their rosebeds with

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Spray with Melrosine when the roses come into leaf. Spray the ground around them as well, for Melrosine is fatal not only to full-grown bugs, but also to hatching larvae, and a beneficial agent to check the fungous diseases that lurk beneath the rose bushes.

Melrosine is a complete insurance against bugs in your garden. Leading Seed and Nursery Establishments supply it. If not obtainable in your neighborhood, a trial can will be mailed upon receipt of 60c. Descriptive circular on request.

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Swelling Buds and Budding Hopes

MAY must have been the month that gave rise to the expression about Anticipation being greater than Realization. When Mrs. Cooper and I decided to turn the corn fields of Dunmovin into Peony fields, we knew that we gambled in both, Anticipation and the hopes for Realization. Every May since, we have watched thousands of buds and learned that many fond hopes were beyond realization.

But we also learned that the joys to be gotten out of even a few good Peonies are so great as to make the price of the roots look small indeed. And so another hope was born—the hope that some day this experience would help others. From time to time I jotted down observations, together with reasons for many successes and failures with Peonies. The sum and substance of all these studies I published in book form.

With its many color illustrations, the "Unvarnished Facts" edition of "Tips and Pointers" is too expensive to send out free. If you are *really interested* in Peonies, send 25c, (to be rebated on orders) and the book will be mailed promptly.

Kenosha, Wisconsin

Henry S. Cooper
Peony Farm

Bull Dog Garden Hose

LASTS LONGEST BECAUSE THERE IS PLENTY OF LIVE RUBBER IN IT. HOSE SELDOM WEARS OUT.- IT USUALLY DIES AND FALLS TO PIECES. YOUR DEALER HAS **BULL DOG** IN 25 AND 50 FOOT LENGTHS. A BULL DOG HOSE GIVES MANY YEARS OF REAL SERVICE

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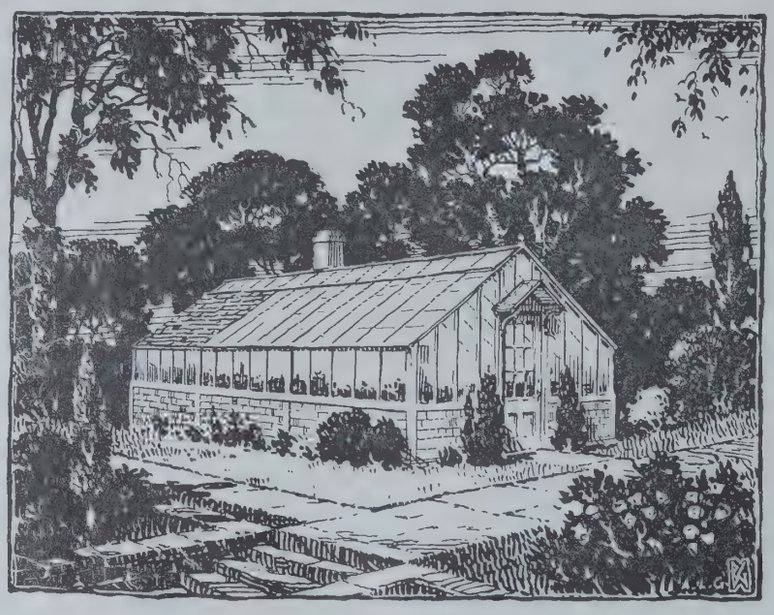

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It's just one of the cheeriest, sunniest of garden spots imaginable.
A place where, say what you will, cares have a way of slipping off.

You ask why?
There's but one answer.
It's wholesomeness.
The digging in the dirt a bit and playing with your flower friends, has no equal for putting you on the sunny side of the street.

But quite the best of all, the whole family share in the joys of the flowers grown.

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Trims and Cuts at Same Time

MontaMower is so designed that it cuts right up to walls, trees, etc.—no fringe left—no handwork necessary. Cuts grass perfectly—leaves no marks or ridges—does not pick up sticks or stones. Thousands of satisfied owners.

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MontaMower cutters resharpen themselves like scissors—they will last from two to four years. At end of that time cutters can be replaced by new ones at no more expense than sharpening ordinary lawnmower.

The MontaMower has one qualification in common with ordinary lawnmowers. It will not operate satisfactorily in wet, swampy places nor in loose sand. The best results are obtained by cutting the grass when it is fairly dry.

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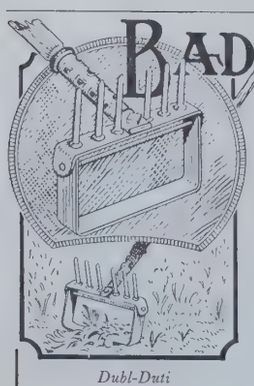
BAD NEWS for WEEDS



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Weeds—must go! They sap the garden's fertility, keep back the cultivated crop. Getting rid of weeds becomes a pleasant pastime with the good help of

Gilson DUBL-DUTI

As shown to left, cutting blade is sharp on both sides.

It "gets the weeds coming and going besides mulching the soil.

KIL-WEED Kultivator

The cultivator for heavier soil—teeth are "V" shaped for cutting weeds and shaped correctly for entering the soil without downward pressure. Shown on shoulder of gardener to right.

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Our New Rose Catalog

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Ask for our New Illustrated General Nursery Catalog of Evergreens, Rhododendrons, Trees and Shrubs. Also ask for Special Lists of Lilacs and Rock Garden Plants.

Bobbink and Atkins **Rutherford, New Jersey**
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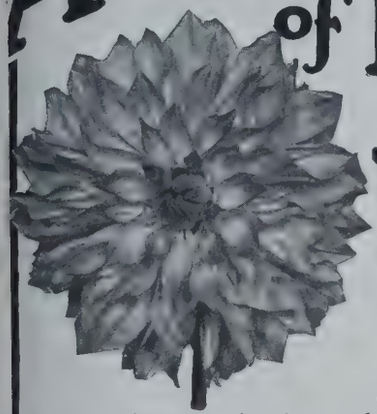
A Garden Full of Dahlias for $3.50



New and Rare Exhibition Dahlias

Few flowers, whether used for garden decoration or principally for cut blooms to decorate the home, are as responsive to simple garden culture as our Modern Dahlia. It has made wonderful advancement in size of bloom, habit of growth and profuse blooming qualities.

In order to further its now great popularity, we are offering this collection of

12 Dahlia Tubers for $3.50

—one each of 12 distinct varieties, not labelled, which if purchased separately according to name would cost not less than $10.00.

Order Your Tubers Now so as to have them ready to plant any time after the tenth of May or when all danger of frost is past.

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A Beautiful Bedding Decorative

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The plant forms a sturdy, upright bush of compact habit, about four feet tall, requiring no staking. The flowers are borne on stiff stems of good length and, without disbudding, will average 6 to 7 inches in diameter. Further description and full color illustration of this outstanding novelty will be found on page 144 of the Dreer Garden Book.

We offer strong, vigorous pot plants of Pride of San Francisco at $2.50 each. Delivery about May 15th.

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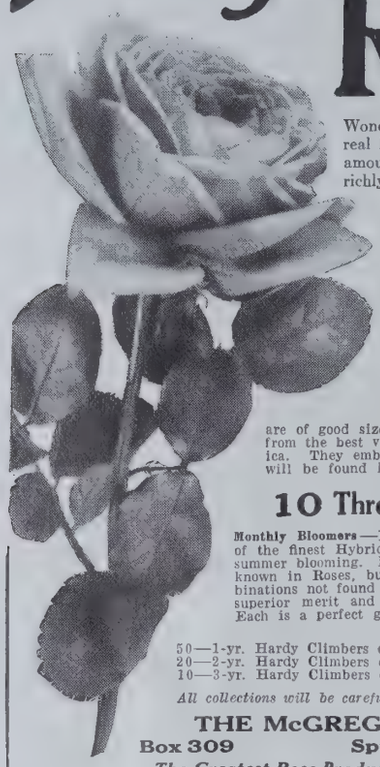

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Monthly Bloomers—No words of praise can adequately convey the extreme beauty of this glorious collection of fifty selected roses. The vigorous, healthy growth, profuseness of bloom, exquisite colorings and beautiful formation of the flowers make this an unrivalled offer.

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THE surroundings of your home! How eloquently they can express a cordial welcome and hospitality.

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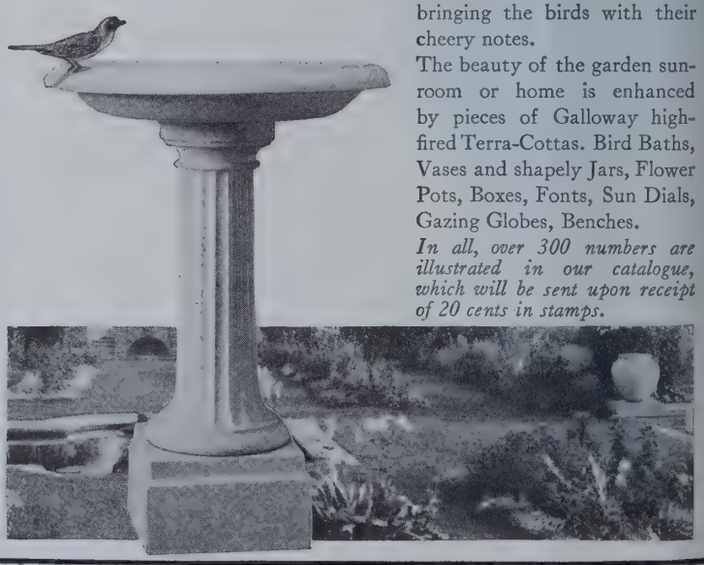

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That's why we suggest your surely ordering your bulbs soon as possible, so we can include them in our early importation order.

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And at once make your selections.

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Turquoise Berry—*Symplocos paniculata*

An exceedingly interesting Asian shrub; tall, broad, with large, obovate, dark green leaves, and a wealth of small white flowers, in compact clusters in June.

The most interesting thing about the plant is the myriads of beautiful, robin's egg or sky-blue berries that remain on the branches until September.

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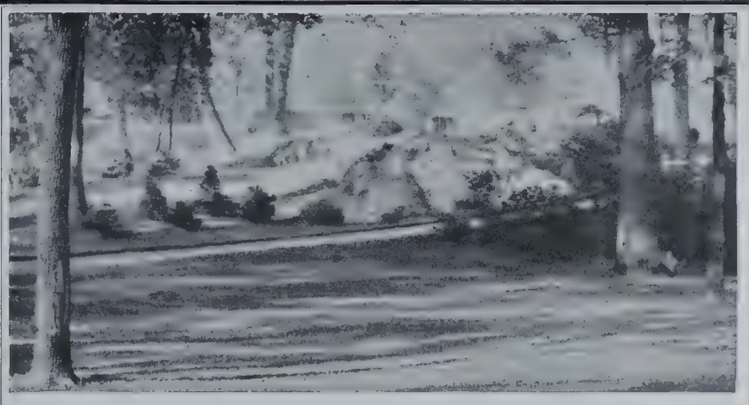

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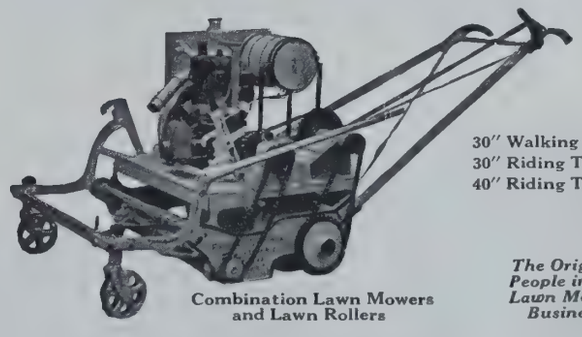

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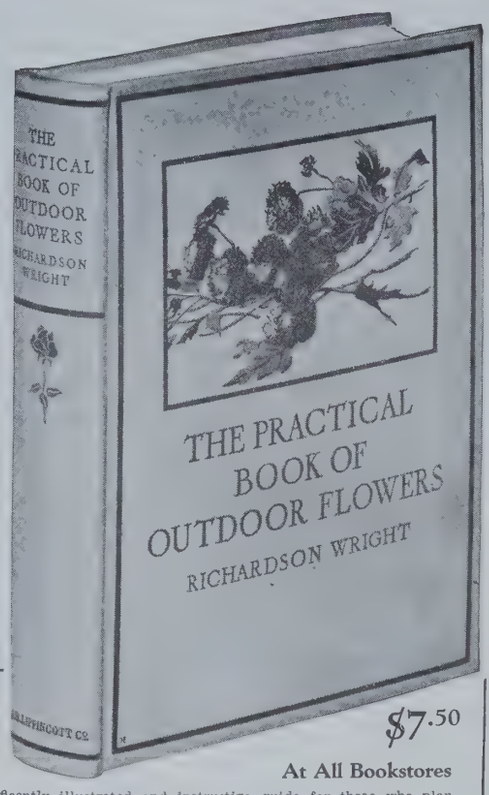

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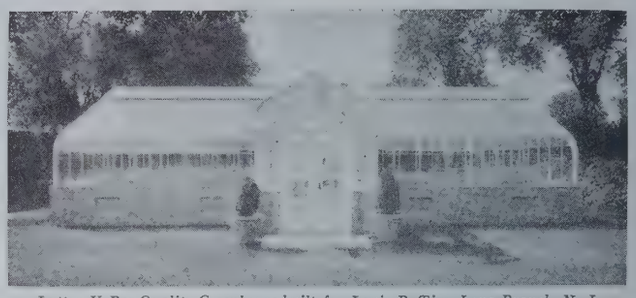

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25 years' experience building greenhouses for the most critical and exacting people throughout the country is your guarantee of permanent satisfaction. You can depend on Lutton Quality Greenhouses being built absolutely right in the first place—productive, artistic, durable, practical, sanitary.

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BRECK'S IRRIGATOR—a new watering device that will do whatever you ask of it in the way of sprinkling or irrigating. Its fifty feet of flexible hose, fitted with spray nozzles, waters any area on your grounds thoroughly with a minimum of labor.

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Fifty-foot length sent upon receipt of $25.00—prepaid east of the Mississippi; sent express collect west of the Mississippi. Sold also through 500 Breck Stores in New England.

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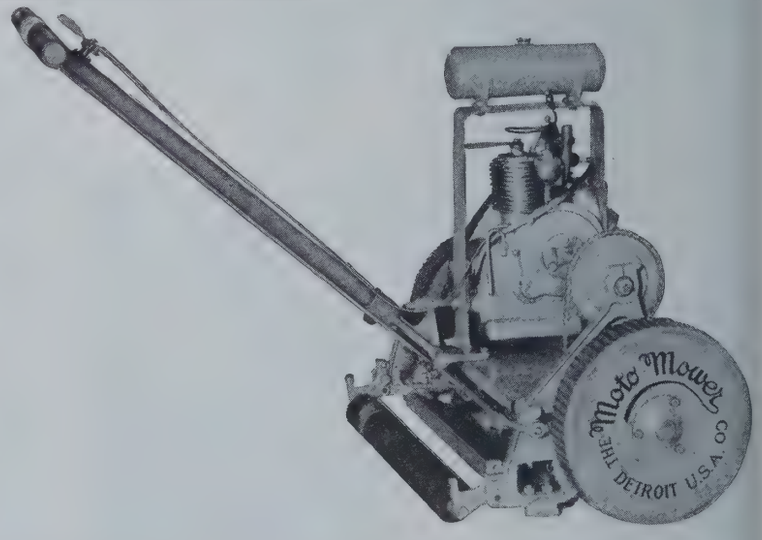

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No expert mechanics needed to run it

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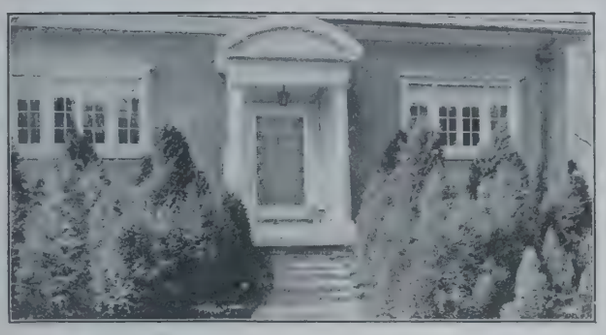

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Six splendid Evergreens — each a specimen plant, vigorous and big-rooted — to add grace and distinction to your doorway or lawn.

This collection consists of matched pairs in the following three deservedly popular varieties:

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Carefully packed, crated and delivered to the express on receipt of the price.

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The New Outpost Catalogue is yours on request — Many fascinating novelties and all the worth-while favorites in Evergreens, trees, shrubs, vines, perennials, roses, etc., with complete price lists.

Maplewood Road **Outpost Nurseries** Ridgefield Conn.

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MRS. CALVIN COOLIDGE

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As a commercial Rose for the market, it is one of the best producers and seems to bloom, for some reason or other, much freer than Ophelia or Mme. Butterfly.

It has a fine stem and foliage, very distinct and dark green. This is one of the best commercial roses ever introduced. It is a fine seller. We believe that this Rose will become a valuable standard variety alongside of Premier, Columbia, Mme. Butterfly, etc., and will be equally profitable and desirable as it is a real good yellow commercial Rose that we are satisfied will prove profitable in the hands of every grower. This will also be a fine addition to our garden roses.

TEMPLAR

This new variety was raised by The Montgomery Company of Hadley, Mass. The flower is a clear even shade of red that does not blue or purple as the flower ages and holds the color well at all seasons of the year. It has a good stem and foliage. The flower is medium in size and compares favorably with Mme. Butterfly. It is a good producer, very free flowering and the flowers are very fragrant.

SOUVENIR de CLAUDIUS PERNET

This new French variety is a very vigorous grower of branching habit. It is in the Pernetiana class. The foliage is dark green; buds long and pointed, of exquisite shade, carried on long stiff stems. Flowers very large, beautifully formed, color deep lemon yellow.

In addition to the above new varieties, we can supply the following well-known standard sorts: *America, Columbia, Crusader, Francis Scott Key, Double White Killarney, Mme. Butterfly, Mrs. Aaron Ward, Mrs. W. G. Harding, Pilgrim,* and *Premier.* Write for descriptions and prices.

Catalogues on application.

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Tarrytown **New York**

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And So You Start Each Day

You can always count on starting each day with a bounty of flowers.

Always some crisp, succulent vegetable.

And at totally out of season times, fruits.

Luscious, thin skinned, delicious, such as only can be grown in gardens under glass.

Not the usual greenhouse, mind you, but your own garden under glass, just outside your window.

A goodly sized Glass Garden, the complete materials for which we will sell you for so little as 1,650 dollars.

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Send for circular giving the full particulars.

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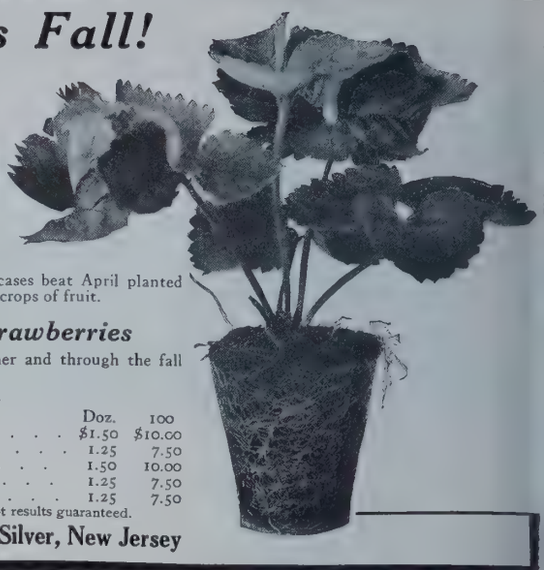
Gather Berries Like This, This Fall!

You have our double assurance that, first, *Lovett s All Season* Everbearing Strawberry really yields fruits as shown to left and, second, that you can still figure on gathering them *this season* if you set out plants as shown to right.



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These plants have a running start. They take hold at once and in most cases beat April planted layer plants. They grow thriftily, bloom profusely and produce splendid crops of fruit.

Everbearing Varieties of Pot-Grown Strawberries

(These, if planted before June 10th, should bear heavily late in the summer and through the fall months.)

Lovett's All Season—greatest of them all. $5.00 dozen, $35.00 per 100.

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Champion Everbearing, a wonder	$1.50	$10.00
Forward, large berries	1.25	7.50
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Success with Roses by Robert Pyle

ROSES! The very word is fragrant. It is a caress, a magic incantation. Exquisite memories lie in its gift. It enshrines more mental pictures of pure and enduring beauty than any other in the garden of speech. Life admits no word to more tender intimacies. As children we dance to its nod down sunny aisles of laughter; as young men and maidens we seal with it the betrothal kiss; and at our journey's end we call upon its living fragile loveliness to breathe denial of death itself.

Since history was first written the rose has been associated with the most important, and vital, as well as the tenderest, events in the life of man.

The rose reigns without a peer over the kingdom of flowers. In its myriad shades it rivals the seductive orchid; and above all, its exquisite fragrance gives us the enjoyment of another sense—the crowning feature, in which no other flower can compete with it.

This is the month, May 1 to 10, to spray your plants with a solution of nicotine or sulphotobacco soap to act as a preventive against green-fly. Later in month apply weak manure-water to plants and spray again to kill off the green-fly.

From "How to Grow Roses"
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PREMIER ROSE

CONARD ★ ROSES
Guaranteed to Bloom

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Revel in the variety of delicate blooms which our Iris beds afford during the latter days of May. On the Sawmill Road, north and east of Tarrytown—a fine motor way.

Almost before the Irises are past their prime the gorgeous early *Peonies* will usher in a month of beauty. Through a quarter century of selection our Peony collection has been steadily improved. Inferior varieties have been discarded and choice new kinds have been added, making an assortment unsurpassed for beauty and completeness.

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"Hardy Plants for the Home Garden"

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Fertility Maker

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OFFER A—12 Plants (One each of above)		**$2.50**
OFFER B—36 Plants (Three each of above)		**6.50**

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Hardy Water Lilies Easily Grown

Deliciously fragrant blooms, 2 to 6 inches across, in white, yellow, and various shades of pink to dark red *in your garden.* Why not? Anyone can grow them; all they need is rich soil, full sunshine and water.

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Nothing Difficult

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No matter how good the seeds you sow or how excellent the plants, they must be properly fertilized (or fed), to make them flourish. Old gardens so treated, take on new life and will be better than ever.

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the richest fertilizer, contains about double the strength of commercial fertilizers, so only a small quantity is required and waste is eliminated. It is in convenient tablet form, easily applied and is clean, odorless and stainless. No mussy mixing.

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A E WOHLERT
The GARDEN NURSERIES Narberth Pa

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Of all the rare and unusual plant material brought to us from China and Japan, none surpasses in loveliness the Flowering Japanese Cherries and the Chinese Flowering Crabapples. Hardy as oaks, in various color shades and of various degrees of fragrance, they will prove an asset to home grounds large or small. Here is what is available for prompt shipment and not later than middle of May:—

Japanese Rose Flower Cherries

Amanogawa. Translated "River of Heaven," or "Milky Way," this is one of the rarer sorts in great demand because of its unusual columnar growth like Lombardy Poplar. Color, a blush pink, with a delicate fragrance. Effective everywhere.

2 to 3 feet at $6.00 each; $40.00 for ten
3 to 4 feet at $7.50 each; $50.00 for ten

		Each
Double White; pure white, showy	5 to 6 ft.	$5.00
	6 to 8 ft.	7.50
Double Pink; strong growing sort	3 to 4 ft.	4.50
	4 to 5 ft.	5.50
Naden (Sieboldi) Pink, big double flowers; known as Sieboldi; a very popular variety.	3 to 4 ft.	4.50
	4 to 5 ft.	5.50
Hizakura—Double red; blooms early; vigorous.	3 to 4 ft.	6.00
	4 to 5 ft.	6.50
Sekizan—Double light red flowers; crimson buds; pendulous flowers; spreading habit; medium growth.	2 to 3 ft.	4.50
	3 to 4 ft.	5.00

Special Offer: A collection of one of each of the above varieties, of the smaller sizes, for $25.00.

A collection of one of each of the above varieties, of the larger sizes, for $30.00.

		Each
Shidare Higan—Weeping Cherry—Early, first to bloom—Deep pink; free blooming: Vigorous		
	Pyramids 3 to 4 ft.	$5.00
	" 4 to 5 ft.	6.00
	5 to 6 ft.	7.50
	Standards, 2 yr. heads,	10.00

Chinese Flowering Crab Apples

Most of the varieties are fragrant, and all are very decorative. Fine for hedges or screen of trees. We particularly recommend:

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Ming Shing (Malus arosanguinea)—Premier of all in color. Crimson buds and deep red or pink flowers.	18"-23"	$2.00	$15.00
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Scheideckeri—Covered with bloom in early spring. Double flowers; deep rose, fading to pink in bottle-brush formation along the stems. Fruit yellow, abundant, splendid for jelly.	18"-30"	$2.00	$15.00
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Special Offer: One of each of the above 4 varieties will be sent for $6.00.

Special Combination Offer: The 7 Cherries, smaller sizes, and 4 Crabapples will be sent for $30.00; This is the greatest offer ever made in this class of rare trees.

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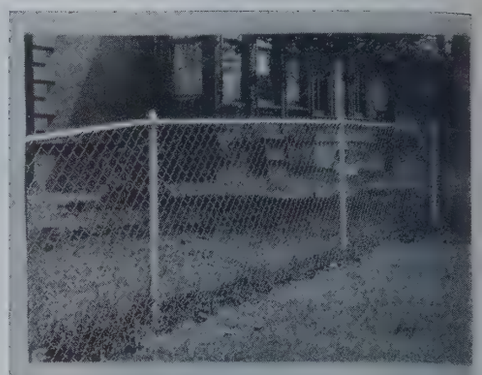

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Collection 1 each Catherina, gray blue; Dick, dark blue; Diana, crimson red; Desdemona, old rose suffused with purple; Golden Measure, golden yellow, Marshal Foch (K), pink; Mrs. F. C. Peters, lavender; Mallow, new, creamy white; Orange Glory, orange shade; Purple Glory, maroon red; Snowdrift, new, pure white; Sweet Brier, new, dainty pink. 12 of the best varieties worth $5.50 for $4.00. Mixture—40 named varieties of blooming size, 1 each for $1.50, 2 each, $2.50, not labelled. Picked up mixture of all named varieties, $3.00 per 100. Send for my 1924 price list of over 100 varieties.

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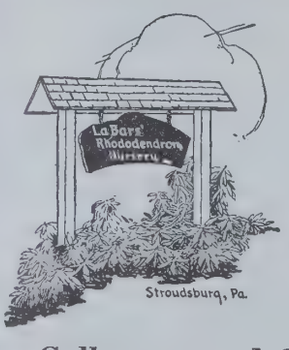

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For planting at your summer place—PHLOX will bloom this summer. We have the following colors—

PINK, LIGHT BLUE, ROSE, PURPLE, WHITE and many of the very best named varieties for 25c each; $2.50 per dozen.

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Sturdy nursery-grown plants that will make a creditable showing this summer.

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A Blue and White Border. 8 feet long.

6 Larkspur
8 False-dragonhead
6 Blue Canterbury Bell
8 White Canterbury Bell
6 Sweet William
6 Scotch Pink

A total of 40 sturdy plants, with a planting plan, for **$6.50**

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A Pink and White Border. 15 feet long.

8 Mallow
8 Canterbury Bell
8 Foxglove
6 Phlox
6 Columbine
6 Evergreen Candytuft
4 Snow-in-summer
4 Sweet William

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Our Catalogue

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TRY THESE SIX WONDERS

6 Bulbs of each (36 bulbs) $5.00 postpaid — Doz.

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Great for Lawns, Grass Plots, etc. Especially good for gardens, etc., where quick and certain results are necessary. Used extensively for small fruit, shrubbery, etc.

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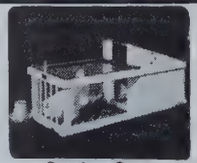
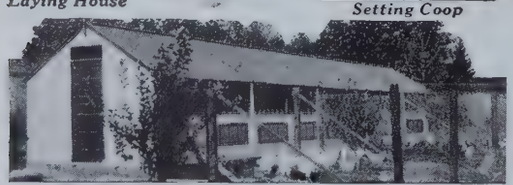


Setting Coop



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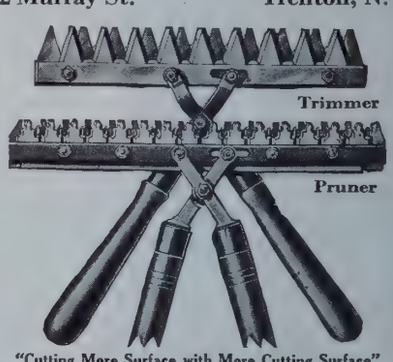

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HOMELIKE! That's the word. That just describes them. Thousands and thousands of housewives have inspected them, and all have felt this thrill of recognition. They look like places where good things to eat are being made. They are full of tempting odors. They are white and clean and well cared for. The sunshine lies across the floors. The Heinz girls are busy and neat and cheerful. It is a domestic picture that warms the heart of every woman with a spark of housekeeping instinct.

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57

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7 Heinz Cream of Pea Soup
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10 Heinz Cooked Macaroni
11 Heinz Mince Meat
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Spotless cleanliness, attractive cheery patterns, sturdy durability —these are the qualities one looks for in the floor-coverings for the "service" rooms of the house. And they are precisely the qualities of *Gold-Seal* Congoleum Rugs.

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6 ft. x 9 ft.	$ 9.00	9 ft. x 9 ft.	$13.50
7½ ft. x 9 ft.	11.25	9 ft. x 10½ ft.	15.75
9 ft. x 12 ft.	$18.00		

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1½ ft. x 3 ft.	$ .60	3 ft. x 4½ ft.	$1.95
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Owing to freight rates, prices in the South and west of the Mississippi are higher than those quoted.

You can identify genuine guaranteed *Gold-Seal* Congoleum by the Gold Seal label shown above. Be sure to look for it when you buy!

CONGOLEUM COMPANY
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Gold Seal CONGOLEUM Rugs

Pattern No. 408 *Pattern No. 530* *Pattern No. 321*

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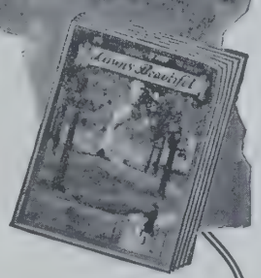

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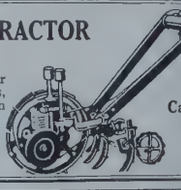

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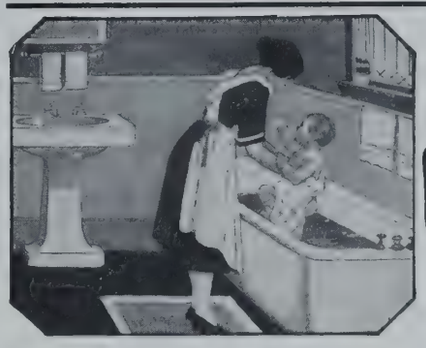

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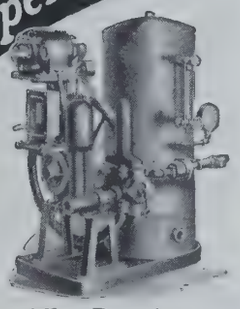

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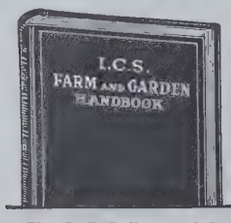

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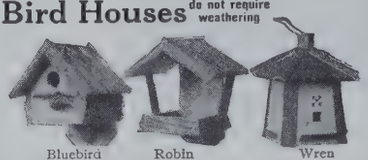

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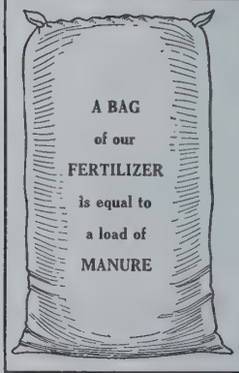

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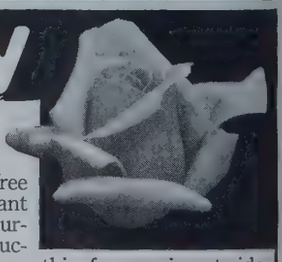

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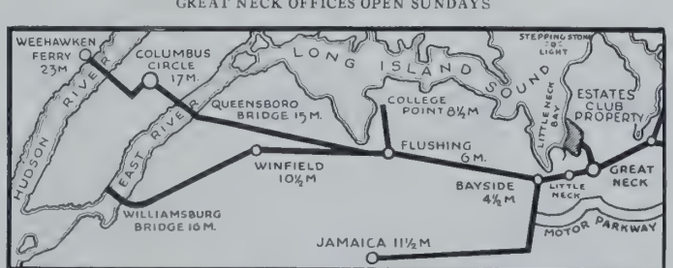

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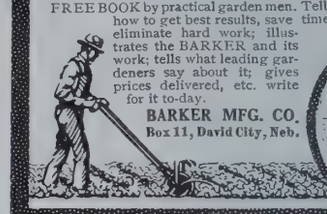

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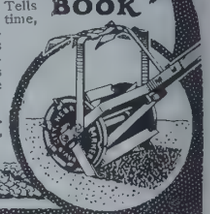

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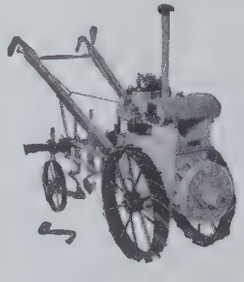

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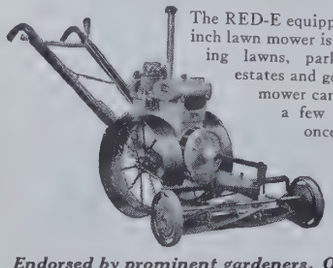

The RED-E equipped with our 31 inch lawn mower is ideal for mowing lawns, parks, cemeteries, estates and golf courses. The mower can be attached in a few moments and, once on, furnishes an outfit that will take the place of six men with hand machines.

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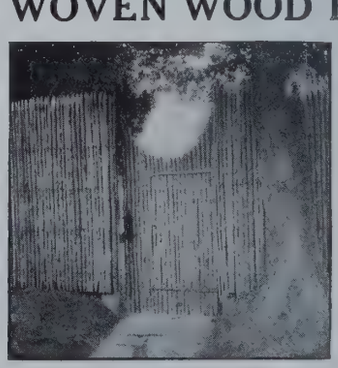

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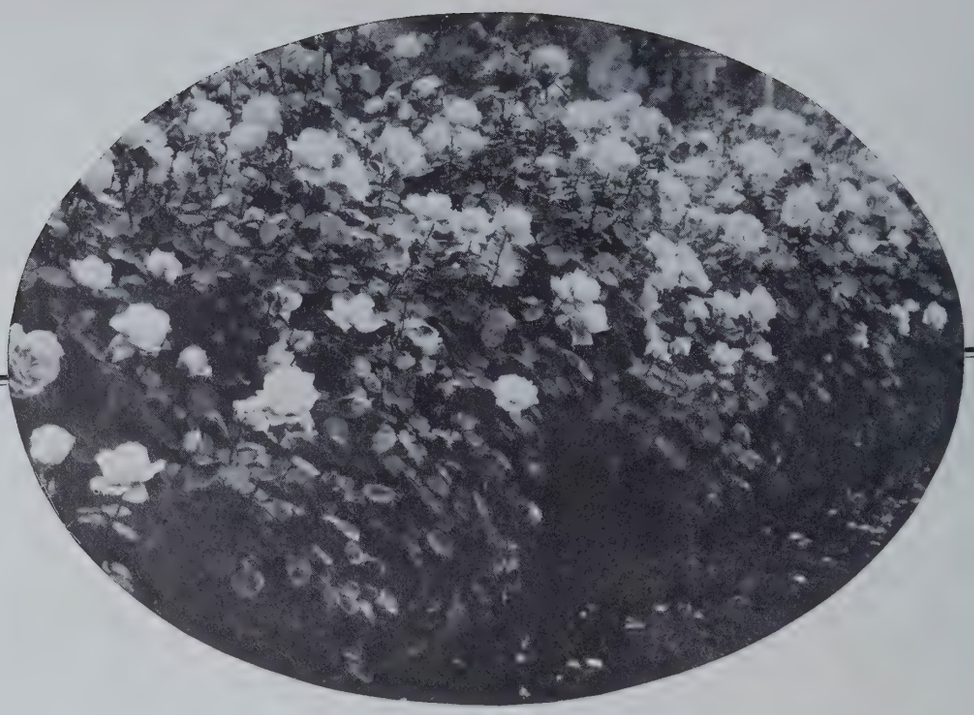
GARDEN MAGAZINE

June, 1924
Price 25 Cents

Making the Garden Livable

VOL. XXXIX. No. 4

Doubleday, Page & Company, Garden City, New York *Boston :: Los Angeles :: Chicago*



No Rose Without A Thorn

and seldom without Rose Bugs. Until six years ago rose gardens were practically at the mercy of this apparently unconquerable pest. But now the law of compensation gives us

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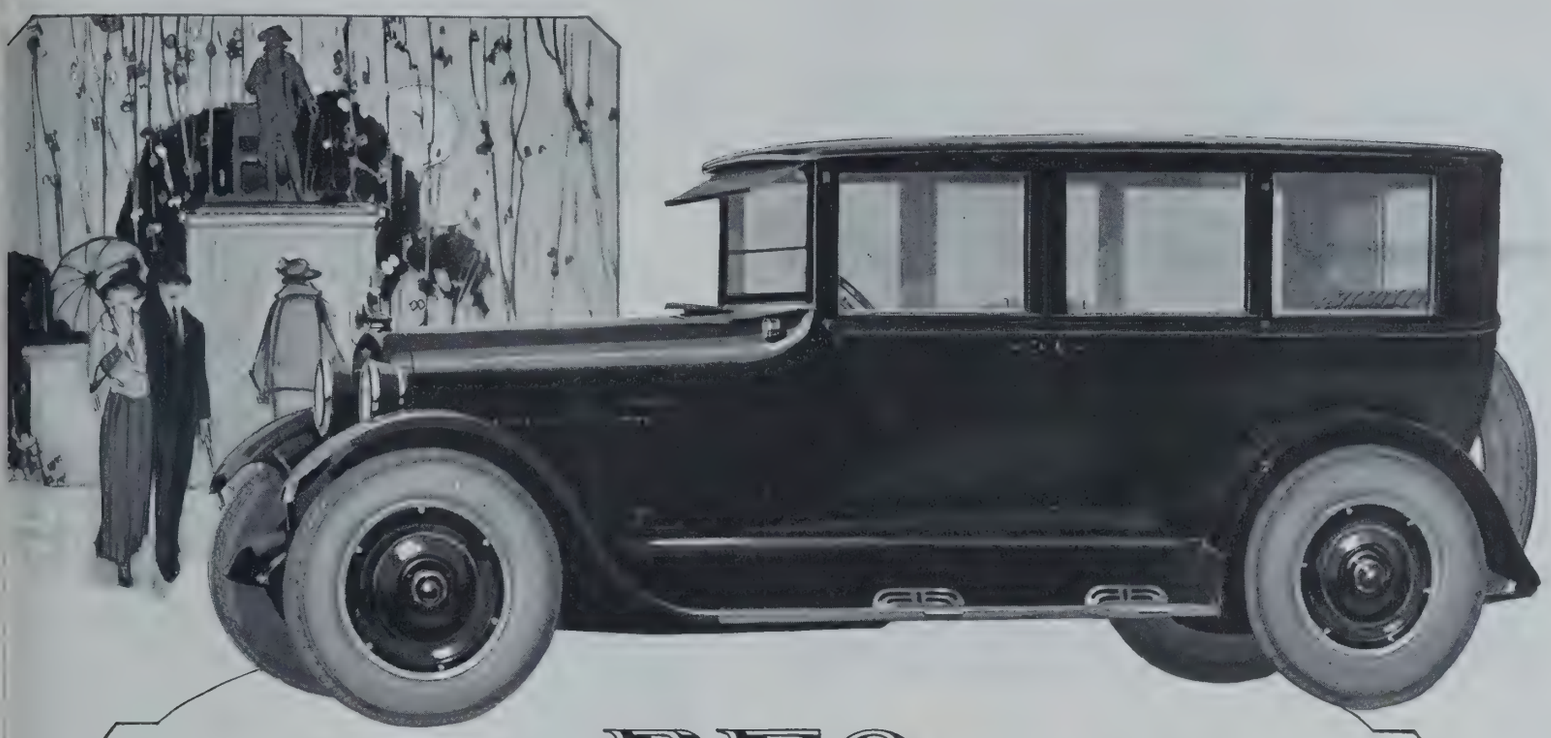

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Beauty of line matches with interior refinement and comfort qualities.

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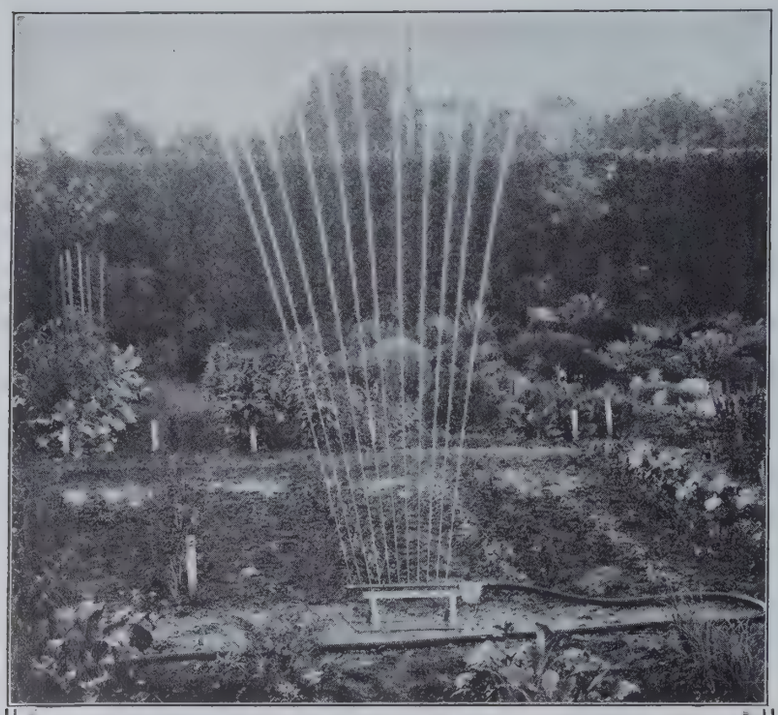

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Did your garden suffer from drouth last year? Did visions of early and abundant crops fade and show June a month of disappointments rather than one bringing plentiful crops of delicious early vegetables?

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We have specialized on growing the CHOICEST PEONIES, IRIS and PHLOX for over half a century.

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Then we have many others equally good, which we shall introduce in the near future.

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At the American Peony Show, St. Paul-Minneapolis, June, 1923, after a journey of half way across the continent, the Cherry Hill Strain of Peonies had the INHERENT QUALITY and STAMINA to be worthy of the following awards:

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During mid-June you may see at Cherry Hill some of the world's choicest productions in all their wondrous beauty.

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Bulbs that are packed to your order in Holland, and are handled just once.
Bulbs that win the prizes year after year under ever keener growing competition!
Bulbs of exceptional size and blooming qualities guaranteed true to name and color

Such are your advantages in buying the bulbs offered through our modest free catalogue described by experts as "the most authentic bulb catalogue published." Please write for it TODAY—a postcard will do—and mention G. M.

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"Some Single Peonies, like great wild roses with hearts of gold should certainly be included in your collection." Prof. A. P. Saunders, Secretary of the American Peony Society.

The Peony shown at the left is the magnificent Japanese Tokio.

"Like Great Wild Roses With Hearts of Gold"

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For more than a score of years, I have worked among the Peonies, collecting, selecting, and rejecting until my collection challenges the admiration of experts. And my prices are "As Low as Consistent with Highest Quality."

Come in late May or early June. Or if this is impossible send your name and address and receive my Peony Catalogue, ready in August. Write to-day—before you forget.

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Rhododendrons, Laurels and other flowering evergreen shrubs

It's not too early to make fall planting plans. Right after blooming time, throughout July and August, is an ideal time for transplanting this type of nursery stock. Ferns, too, and a multitude of woodland favorites may be planted any time now. Please write for my free catalogue to-day and mention G. M.

Edward Gillett
Fern and Flower Farm
3 Main St.
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WITHIN FRIENDLY WALLS

The enclosed garden creates a welcome seclusion which warmly befriends outdoor living and the sense of intimacy is somehow heightened by contrast with the wide vista beyond this garden gate. (Mary H. Northend, Photo)

Cover Design: Iris Morning Splendor - - - - - - *Marion T. Schull*

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The Garden MAGAZINE

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Mary H. Northend, Pres.

"WHERE THE GOLDEN BELLS OF YESTERDAY ARE ECHOED BY NEW VOICES"

Amer Pindar

IN THE GARDEN AT "THE HOUSE OF SEVEN GABLES"

"It was itself like a great human heart, with a life of its own, and full of rich and sombre reminiscences." Thus Hawthorne describes this storied dwelling of old Salem (Mass.) "Behind the house there appeared to be a garden, which undoubtedly had once been extensive, but was now infringed upon by other enclosures . . . it was both sad and sweet to observe how Nature adopted to herself this desolate, decaying, gusty, rusty old house of the Pyncheon family; and how the ever-returning summer did her best to gladden it with tender beauty."

And in the quiet of this garden present-day folk chatter over their tea, delighting in its romance and dispelling its melancholy

Mattie Edwards Hewitt, Photo.

"A SWEET SECLUSION THIS OF SUN AND SHADE,
A CALM ASYLUM FROM THE BUSY WORLD,
* * * * * * *
AND HERE ARE SCORES OF SWEET OLD-FASHIONED BLOOMS,
DEAR FOR THE VERY FRAGRANCE OF THEIR NAMES—"

John Russell Hayes

The pergola frequently furnishes a comfortable and sheltered place for outdoor living with its filtered sunshine and freedom from overly strong winds. A paving of brick or other suitable material of interesting pattern adds both decorative effect and underfoot protection. Wampus, the home of Mrs. John Magee at Mt. Kisco, N. Y.

Mattie Edwards Hewitt, Photo.

"I WAS STEEPED IN SUMMER,
ADRIFT IN BLOOM.
MY GARDEN WAS GAY AS
A TAPESTRIED ROOM."
Louise Driscoll

There are many days when it is a delight to be out under the trees surrounded by sweet-scented bloom, the slow humming of satisfied bees, and all the drowsy, health-giving fragrances and sounds of summer at full tide. And for fullest enjoyment we need a place to sit at ease without the bother of moving chairs or a seat from the house. Mrs. Robert Brewster's garden at Mt. Kisco, N. Y.; Ellen Shipman, Landscape Architect

"FAIR QUIET"

ARTHUR W. COLTON

Author of "Harps Hung Up in Babylon," "The Delectable Mountains," and other books. Articles by Mr. Colton may be found in January, March, and April 1922, and October 1923 GARDEN MAGAZINE as well as in a number of other publications

The Garden as an Out-of-doors Home where Men Foregather with Flowers, Peace, and Friendship

THE garden is coming to seem to more and more of us a place to live in, to sit down in, and meditate on things, and have unhurried conversations with unhurried friends; an out-of-doors home, a happy blending of nature and humanity, where things that grow out of the brown earth and things that grow out of the gray matter of men's brains, natural forces and human contrivances, flowers and friendships, green leaves and wayward fancies, come together on a common ground of mutual understanding, to the betterment of both.

The story of gardens is a long story, and in the main they have always had something to do with the idea of refuge. Culturally and horticulturally we come from the Near East by way of the Mediterranean. Hither Asia is dry and hot, and even Mediterranean coasts are relatively so. Our Roses and Peaches and so on seem to have come from China by way of the gardens of old Persia, where the refuge primarily sought was from the desert's heat. Fountains and shade were the first desires and ruling motives, yet nowhere has open air seclusion been so universally demanded as in the Near East, where men clustered in cities, but built their houses around inner courts and cloisters. The Roman atrium and peristyle were open air living rooms, inner courts half roofed toward the center, and under this unroofed center was always a fountain or pool, and probably something green and growing.

At any rate, whether cloistral, or of terraced outlook, or walled, or hedged, the garden has always been a place of cool water and green leaves, in some degree of ordered planning and attendance; and even more than a place to dig and plant—very noticeably more in its actual history—it has been a place to live in, and find peace there, with private thoughts and familiar friends.

Andrew Marvell is supposed to have written his poem, "The Garden," in Latin first, and then translated it. I do not know on what the supposition is based, for the two were first printed together in 1681; but Latin poetry in the 17th century could still be written with gusto, and Marvell is as freehanded with it as his friend Milton. Still the English version is more useful to us. It is perhaps the most celebrated and probably the best poem on gardens in the language.

Marvell's garden included an orchard, and seems to have been largely informal:

> "The nectarine and curious peach
> Into my hands themselves do reach;
> Stumbling on melons, as I pass,
> Insnared in flowers, I fall on grass."

The only artificial formality in Marvell's garden, specifically mentioned, was a flower dial; it was no "yea-forsooth precisian" of a garden:

> "Here at the fountain's sliding foot,
> Or at some fruit tree's mossy root,
> Casting the body's vest aside,
> My soul into the boughs does glide;
> There like a bird it sits and sings,
> Then whets and claps its silver wings."

Was there ever a more birdlike fancy, more light, lilting, unexpected and off-on-the-instant with a flit of wing?

> "Such was that happy garden-state,
> While man there walked without a mate
> . . . . . .
> Two paradises 'twere in one
> To live in paradise alone."

But Eden, according to the specifications, was hardly a garden at all, and—for a counter-irritant to Marvell's doctrine that the ideal "garden-state" was proper only to solitary bachelors—a contemporary of his may be quoted, one Abraham Cowley, who wrote a poem of the same title, nearly as good, and addressed to another lover of gardens and trees, John Evelyn, commending his wisdom in the art of living:

> "In books and gardens thou has placed aright
> Thy noble innocent delight."

And especially for his association of Madam Evelyn with that delight, finding thereby:

> "The fairest garden in her looks,
> And in her mind the wisest books."

There is no magic in Cowley's poem, as there is in Marvell's, which is fruity, fragrant, and many colored; but the presiding genius of both and the burden of their song is "alma quies et germana quietis, simplicitas," fair Quiet and her sister, Innocence. It is the feeling of Horace for his Sabine form, and of Chaucer's:

> "Flee from the press and dwell with the soothfastness,
> Suffice thee thy good, though it be small."

It is weariness of cities and contentious ambition. Marvell was a member of Parliament, and Cowley a disappointed place hunter. Evelyn kept a diary, which is not as entertaining as that of his friend Pepys, wrote a book on trees called "Silva," rented his Sayes Court place at one time to Peter the Great of Russia, who used to ride horseback through the clipped hedges. His ancestral seat, Wotton House in Surrey, is still in the family, or was twenty years or more ago, when I came down behind it from Leith Hill and noted that the reigning Sir John Evelyn kept kangaroos instead of deer. All three, the two poets and the gentlemanly diarist, were men of affairs, familiar with courts and councils, with hard pavements and hurrying crowds, with tumult and intrigue and heart burning. A garden represented a refuge from these things and their antithesis—*alma quies*, consoling peace, senses soothed with fragrance and beauty and the songs of birds, and hours moving slowly to a flower dial instead of the nervous jigging of a clock. Something of this kind too it represents to those garden lovers of our generation who have interest in more things than digging and planting and the breeding of prize Roses.

Marvell translated his "Alma Quies" as "Fair Quiet"; but his Latin was better than his English adjective, for "alma" does not mean "fair." It means much more in respect to gardens. It means nourishing, cherishing, restoring, genial, bountiful, and the like. It is the epithet associated with the deities of earth and sunlight, the harvest and the vintage. It means here the effect which the quiet of gardens has on tired nerves and the depression born of the flight of years; because nature brings there her leisure, strength, and imperturbable beauty, each year imperturbably reborn, and lends them to the ends of human contrivance; and the daily companionship of these things makes in some secret fashion for the restoration of confidence in the universe and content with one's personal destiny there.

There are therefore, it may be not too fancifully argued, two spirits which brood beneficently over gardens; one of them is this "Alma Quies" and the other is the spirit of a long tradition, the subsidence and memorial remainder of old happiness left behind by forgotten generations.

FITLY FURNISHING THE EVERYDAY GARDEN

RUTH DEAN
Landscape Architect

Selecting Furnishings in Keeping with the Spirit of the Garden Plan Whether Old World, Colonial, or Modern American—Placing Seats and Sun-dials, Arbors and Arches Where They Really Belong

"WHAT would you do with Euripides and the rose arch and the circular white seat that Aunt Ellen gave us?" said my wistful new client who was having her first garden. A succession of gardens had taught Aunt Ellen many of the gardener's pitfalls but it had failed to overcome her native thriftiness and she had passed on to a bewildered niece the outgrown garden furniture she could not quite persuade herself to throw away. "Well," I hedged, "this plan doesn't provide any place for so large a seat, but I will try to find the right spot for it, and the rose arch could perhaps go in the vegetable garden, and Euripides at the end of the long path." Vanishing was the primness which was to have been the keynote of the garden, vanishing at the very threshold under the clumsy arch that threatened to displace the slender one designed to go with the house. Could I summon up the courage to tell her that Euripides must find a home in her neighbor's Italian garden down the road, that there was nothing at all to do with the "extra size" arch and ponderous seat but to burn them?

Not all garden furniture finds unsuitable surroundings by the gift method; deliberate purchase is responsible for just as many inappropriate combinations, partly because of the difficulty of obtaining good garden furniture ready made, and partly because the accessories of the garden have not been thought out, placed on a plan, designed and selected at the time the garden itself was being designed.

A seat that is put in because something must go at the end of a path, an arch because the president of the garden club has such a pretty arch in her garden, an arbor without regard to the fact that it leads to no place in particular, may be only jarring notes in a generally good garden, but the chances are they will be important enough to throw the whole garden out of key.

Seats for Comfort and for Pleasant Composition

THE placing of a seat (to take the first example) is not to be thoughtlessly disposed of; a frequent and unfortunate position is on the central axis of the piazza where it is apt to be the most important feature of the garden, roofed over by an arbor, forming the semicircular head of the garden backed up by a wall, or otherwise elaborated. Now, of all the resting places under the sun, I can imagine none less interesting than this, where one is compelled to gaze back at another sitting-place from which one has just come. A little ingenuity will devise a fitting terminus for the principal axis of the garden, and the seat can go off in a partially secluded place to one side, from which something more interesting is to be seen than the direct elevation of the piazza.

At the end of a straight path is another usual place for a seat, a location that is sometimes bad, particularly if, again, the path is not on direct axis with the house. There is something unpleasantly compelling about so obviously placed a seat, and the natural impulse is to turn away from it, to find a more secluded place to sit. A quiet spot under a shadowing tree, an opening in a tangle of shrubbery where the birds chatter and sing, a point whence there is a vista through garden flowers, to a piece of lawn beyond, or a vantage point for a view, are the most inviting places in which to come upon a garden seat.

In placing a bench under a tree a mistake to be avoided is centering the bench on the tree. The criss-cross formed by the horizontal line of the bench and the center vertical line of the tree makes a bad composition. The bench will be ever so much more pleasing placed to one side of the tree, where the tree frames and shades it and where the trunk of the tree is not unpleasantly cut off by the bench. Center a long path on a fine old tree if you wish but place the bench to one side—out of the vista.

The frequency with which a seat is placed at the end of a path, is due, I think, to a feeling that the vista formed by the path must be terminated. This is a tradition for which the Italian school is responsible. The skeleton of the Italian garden is formed by long, straight paths, crossed and re-crossed by other paths, and its keynote the

MIRRORED LIGHT AND SHADE

"A pool is pleasanter with some shadows on it" as here in the garden of Mrs. Henry Parmellee at Norfolk, Connecticut. Marian Coffin, Landscape Architect

terminated vista; but seldom is a seat the terminating object. The Italians used sculpture with a prodigal hand in their gardens; and fountains, temples, the hermae or terminal figures, urns, pedestals surmounted by figures, all recur at frequent intervals to reward the gaze compelled along given lines by clipped avenues or tree-bordered paths.

Americans have an inherent dislike for sculpture in the garden, a dislike that is a heritage perhaps from the cast-iron reindeer period which is still near enough to haunt us. Or it may be the scarcity and expense of good sculpture that are accountable for our reluctance to use it, or our fear of that other bugaboo, "formality." Whatever the state of our minds regarding sculpture, we have got as far as granting that a vista must be terminated and, because a seat is one of the few objects we think permissible in a garden, we are forced to use it, regardless of its fitness for the purpose. It were better to design a place where the seat will be used and enjoyed and let the vista go unterminated.

EXPRESSLY DESIGNED TO FIT THE PLAN

Grape arbor and seats made to frame a formally arranged vegetable garden with dipping pool in the center of the path; at the home of Mrs. Charles G. Stamm, Westport, Connecticut; Marjorie Sewell, Landscape Architect

Arbors in Their Logical Relation

ANOTHER accessory of the garden—the arbor—is, happily, more often treated as integral with the garden design, than the seat. Once in a while one sees an arbor or a pergola that begins at no place in particular, and leads to no place at all, or an arbor that cuts down across a small parcel of property dividing it needlessly into badly proportioned pieces. It is an architectural feature and as such needs to have a logically related position in the garden scheme, related if possible to other buildings on the place rather than hanging loose in the landscape. If it cannot be hitched to any existing building its beginning and end are best lost in heavy planting which will tie it into the surrounding landscape; moreover the path that runs beneath it should connect easily with other paths, so that the arbor will appear to lead to some place. It has very definite direction of itself and should therefore be placed where its direction will be useful to emphasize length, or if the contrary effect is desirable, to produce a feeling of greater width by cutting off a too long prospect.

BIRD-BATH AS THE TERMINUS OF A VISTA

"Whatever the state of our minds regarding sculpture, we have got as far as granting that a vista must be terminated." Garden of Mrs. Daniel E. Pomeroy at Englewood, New Jersey; Ruth Dean, Landscape Architect

An arbor is seldom good over the center path of a garden by reason of the fact that it divides the garden into compartments—one on each side; and yet this rule must be amended to except an old garden I once saw, which had a low old-fashioned arbor spanning the central path with very close gardening in the area between the arbor and the high walls on each side. Tall trees above the walls shut off any view at the sides and one's entire attention was directed out under the arbor to the distant view framed at the end. Here the side walls, which, on account of the reinforcing trees, had the effect of being extraordinarily high, dwarfed the arbor so that the garden was still a unit, undivided by the arbor.

Do not go so far in an attempt to connect the arbor with the house as to bring its end up against a terrace; if the terrace is above the grade of the arbor path, one feels as if it would be impossible to descend into the arbor without bumping one's head. Even if the levels are the same the effort at a connection is too patent and the arbor would be better placed ten or twenty feet distant with a centering path that runs out from the terrace, and planting high enough to confine the view, and form a kind of tunnel to the arbor.

Very often an arbor can be used advantageously as the partial background for a garden (it will always look better in the landscape if in turn it has a background of trees rising above it), and so-used, it must be pierced by occasional openings to the garden itself. The path entering and leaving its ends should be a path which continues round the

"A QUIET SPOT UNDER A SHADOWING TREE"

"The placing of a seat is not to be thoughtlessly disposed of. A little ingenuity will devise a fitting terminus for the principal axis of the garden and the seat can go off in a partially secluded place to one side." And, incidentally, this bench is particularly attractive in structure, conveying a sense both of lightness and of substantiality. Garden of Mrs. George M. Gales at Great Neck, New York, designed by Ruth Dean, Landscape Architect

garden, returns to the house or takes one on some interesting excursion.

Where Arches Look Best

ANOTHER garden feature that one is sometimes at a loss to know for what purpose it was intended is the arch. An arch covered with blooming Roses is in itself a pretty thing, but not pretty enough to be dropped down in the middle of a lawn nor for that matter to justify a purposeless existence at just any place in the garden.

The arch is a form of opening, and argues something in which to make an opening—a wall, a hedge, a shrub border, a row of fruit trees; it is an architectural form even if it is executed in plant materials, and as such it must be related to something. Tie your arches into the landscape and reinforce them at the sides by means of planting and place them where you want to lead from lawn to flower garden, from flower garden to vegetable garden or from one part of either to another part.

Of Pools and Sun-dials

AN OFTEN disregarded axiom is to place the sun-dial in full sun; I have seen it set in the complete shade of trees or in the shelter of a wall, ideal locations for a fountain or a bird-bath, but not the spot where an instrument for telling time by the sun could carry on its life work.

A pool on the other hand is pleasanter with some shadows on it, than in open sun, and if in the design of the garden the pool seems to be finding itself out in an open glare of light, a casual bent tree planted near its edge as if it had happened to be there when the pool was built, will cast the welcome shadow. Often it is the chance thing about a carefully designed garden which gives it charm, and sets at naught all our calculated balancing.

Furniture to Fit the Plan

THERE is nothing to be left to chance, however, in the design and selection of the accessories themselves. The atmosphere of the house (providing the architecture is good)

should be extended into the garden: if the house be Italian, the garden benches, flower-pots, sculpture should be Italian in feeling, and they should be chosen with similar care for English or any other given type of architecture.

Italy was the parent of all garden furniture and all other countries borrowed from her. The furniture underwent modifications in the borrowing, to be sure, so that England and France and Spain each set her own mark on the Italian type, and each produced variations. Moreover, each country has had certain pieces of furniture that characterize it particularly, as the wood benches of England, the iron seats and tables of France, and the Spanish use of tile in seats and fountains. American Colonial work had a very definite flavor, also in the white painted wood adaptations of English Georgian work—not to be confused with much of the heavy white painted stuff that is sold as "Colonial" to-day.

GIVING THE DIAL A CHANCE

"Place the sun-dial in full sun, not in the shade of trees or shelter of a wall, ideal locations for a fountain or a bird-bath, but not the spot where an instrument for telling time by the sun can carry on its life work." In a Minnesota garden designed by Holm & Olson, Landscape Architects

The importance of archeological correctness in the design of American gardens is a question for client and landscape architect to decide between them. A straightforward solution of a problem in design, one that is suited to the "lay of the land," the house and the client's wishes, with beautifully designed, or intelligently selected furniture, suitable in scale and character, is bound to produce a pleasing result, and one which has advanced a step in the evolution of garden architecture.

GARDENS THAT PLEASURE THE PUBLIC AND SERVE THE NEEDY

AN UNSUSPECTED opportunity to do good work lies in the hands of those fortunate owners of gardens that are more or less crudely described as "show places."

It has ever been the way of gardeners to visit one another's domain "for to see and to admire," and indeed not a little of the real joy of the real gardener comes from the exhibition of his possessions to admiring friends, especially if these same people have not reached in their own enclosure the triumphant solution of some cultural problem or successfully acquired some elusive or "hard-to-grow" rarity. And this without any ostentatious display or even vaingloriousness for gardeners are peculiar in their relations to each other. They expatiate upon their accomplishments not in a spirit of boasting, but as teachers, investigators to whom has been vouchsafed a glimpse of knowledge not for the common crowd.

Last year a group of enthusiastic garden owners with benevolent feelings threw open their respective grounds on specified dates to the public, a small admission fee being charged for the benefit of some local charity. The effort was remarkably successful, so much so that it has been extended this year to include many of the leading gardens of Long Island.

Of course, the same kind of thing might be done elsewhere; is done, in fact, in a few individual cases. The well known Du Pont gardens near Wilmington last year, for example, were opened to the public for a 25 cents admission fee every Saturday with the result that the local hospital received twenty-eight thousand quarters.

Those of our readers who do have gardens that are the objects of pilgrimage by other gardeners might perhaps take advantage of the suggestion and follow a good example.

JULY'S GOLDEN MEED FOR THE GARDENER

IT'S never too late to mend" is just as good an adage for the gardener as for any one else! If your new house was delayed in the finishing and you've only just moved in, do not fancy that this summer needs to be a dead loss. There are lots of things you can have and do—almost any of the vegetables, for instance, Carrots, Beans, Corn, Lettuce, and so on may still be enjoyed by sowing seed now. Do you want Dahlias this fall? Or Strawberries next spring? Answered in THE NEVER TOO LATE GARDEN appearing in the July G. M.

Humans are always "wishing for the moon," rather a commendable habit really—and the amazing part of it all is that so many dreams do actually come true! Certainly this is so for the gardner who has all the beneficent forces of life working with him. Do you dream of Orchids and yearn to capture some of their tropical jewel-like beauty for yourself? Well, you may, whether you live in Hoboken or Kalamazoo makes no difference, as *Mrs. M. G. Henry* delightfully and convincingly assures you in her forthcoming ORCHIDS ALL MY OWN. "The floor space of my tiny greenhouse is 6 x 7 ft., too small to be of any practical use, so everybody tells me, and yet it has been and still is for me a perfect little Paradise."

"Nature has always been our best medicine man. Give her a chance to remake your system—eat more salads." *Mr. G. L. Luros*, Nutritional Chemist, speaks with the authority of knowledge and housekeepers will find sound information, some new and delectable salads in our recently established department THE HOUSEWIFE AND HER HOME GARDEN which is to include each month such matters of specific interest to the "lady of the house" as Recipes, Articles on Flower Arrangement, Table Decoration, Food Values and Family Health, and all the diversified activities of a competently run ménage.

NOT BY PLANTS ALONE ARE GARDENS MADE

GEORGE WILLIAM BEATTY
Landscape Architect

Furnishing the Garden for Comfort and Convenience
Materials for Walks and Walls, Terraces and Teahouses

WITH the best will in the world we really do not remember from season to season the defects of our gardens—we forget them just as we forget the shortcomings of people we're fond of when they are off on their travels. It is the intimacies of daily living that reveal lacks and create a desire for remedy. Spring is rather like a yearly home-coming, joyous and long-deferred, and we are too busy greeting ecstatic little Crocuses, answering the cheery salutations of Daffodils and gay, signalling Tulips to be aware of the garden as a whole. Not until June does she settle down, as it were, in her green mantle and give us a chance to study her contours.

In June we not only work outdoors; we begin also to meditate—we wish we had a seat in that pleasant corner and we notice that the path has a meaningless sort of meander that drains it of character and makes it look like a bewildered sleep-walker. We arrive at the disturbing conclusion that no amount of verdure and bloom can wholly conceal initial weaknesses of plan any more than a beautiful velvet can hide a graceless figure; but the owner of the garden, unlike the owner of a figure, is fortunate in being able to re-model the skeleton to a satisfying shapeliness.

Curiously enough, despite all that has been said and read about living in the garden, comparatively few gardens are actually livable and few people give serious thought to making them comfortable and convenient; yet for four months at least, and generally for six or eight, or even the full twelve, they have so much more to offer than the walls of a room! Of course, you want easy chairs, and a bench or swing for napping, tables at which to eat and work, a terrace to keep your feet dry, a sunny

A SEAT WHICH INVITES

"For comfort a seat must be placed in shade and seclusion and always at the end of a walk or vista or some place where it has a meaning," as here in Mrs. Dudley L. Pickman's garden at Beverly, Mass.

spot for cool days, a shaded one for midsummer hours, and at all times seclusion. These desirables are by no means in the elusive "luxury class" either but are at the beck of the smallest householder who has the wit to include them.

When you build a house, or if you buy one, turn its face gardenward. Don't think of it as a building on a plot of ground but of the two together as available living quarters. Link your dining-room with outdoors—a French window will do it—or run the terrace along to the kitchen if need be. Whatever your plan, make it convenient, readily usable. When considering furnishings, remember that the garden is to be your living room for nearly half the year and that though its appointments are undoubtedly simpler and fewer than those of its cold-weather and rainy-day indoor counterpart, comfort and suitability remain prime requisites. Let us remember, too, that though nature is sometimes exquisitely delicate, subtle, and intricate in the expression of her inexhaustible fancies, she is also fundamentally straightforward and enduring, so that the tawdry, cheap, and vulgarly ornate have no place in a garden.

Terraces That Are Really Lived On

FREQUENTLY the terrace is just grass—a flat, slightly higher part of the lawn with a step or two leading down to the main sweep of turf. If carefully made with plenty of fine clean gravel; preferably the ocean screened gravel which is uniform in size, somewhat translucent, and pretty in color.

The most satisfactory way to finish a terrace is, of course, by some sort of permanent paving and for this purpose there are to-day available a number of interesting mediums. Brick offers considerable diversity of color and pattern, as do tiles with their velvety surfaces, smooth but not glossy. My personal preference is for slate which comes in a half-dozen or so pleasing colors and combinations of color—grey, grey-green, terra-cotta, buff and so on—affording great decorative possibility and merging without violence into adjoining sward and shrubbery. The house itself—the architecture and the material of which it is built—rather than individual predilection is, however, sometimes the determining factor as the terrace must be made to match or harmonize. Colored insets are sometimes very nice, giving a jewel-like effect to soft-toned surfaces. Like jewels, however, they should not be overdone and are best used sparingly in small patterns.

The terrace is a logical place to put a small inconspicuous wall-fountain with goldfish. People love life and gravitate naturally toward it—in summer the play of goldfish under the sky, in winter the leaping of flames on the hearth-stone. In placing your fountain remember this and put it where there is room for chairs or a seat—folk like to do their day-dreaming comfortably, in fact ease is a necessary precursor of any day-dreaming at all. Choose a modest fountain; for the terrace it must not be elaborate, the elaborate fountain properly belongs in the formal garden or court. Caged birds too, little love-birds and parrakeets act as a link and bring into sheltered places a note of life and color. Italian pots filled with flowers lend a fitting touch to some terraces, or a well-placed oil jar may furnish a needed accent. Dating back to the time of the "Forty Thieves," at home in the gardens of Greece and of Rome, the oil jar still challenges interest and curiosity.

To be thoroughly livable the terrace demands overhead protection from disconcerting dews and devastating noons. Awnings are a very practical and quick solution of the problem but present pitfalls for the unwary in the matter of color and pattern. Eschew narrow stripes and fancy scallops—they are prone to dance before the eye distractingly and completely shatter the quiet of the

A PRIZE-WINNING WALL NICHE

This dignified treatment shown by the Rye Garden Club at the March International Flower Show (New York) received the Garden Club of America's 1st Prize as the most successful example in its class. The walled garden may be interestingly broken by such a niche which serves as a focal point and an opportunity to introduce color

WOVEN WOOD FENCE

Simple, unobtrusive, and sheltering, this type of fence is especially desirable for the more informal country home where a frame and not an architectural feature is wanted. Weathering to silver grey, it affords support and a pleasant background for Ivy, Honeysuckle, or other vines

under-drainage so that water will not collect, this type of terrace is serviceable in most weathers and very pleasant to both eye and foot. If gravel be used, as occasionally seems desirable in situations where grass will not grow and the more elaborate brick or slate work is not wanted, be sure to select a

OUTDOORS OFFERS SO MUCH IN THE WAY OF HAPPY LIVING

Why should we shut ourselves within walls at meal time or indeed at any time when skies are blue and warm breezes sing! The paved terrace makes an ideal living-room for many more days and many more occupations than we customarily realize. The Persian tile insets are a pleasant note of color here at Près Choisis, the East Hampton (L. I.), home of Mr. Albert Herter

garden. There are positions where the orange Venetian sailcloth can be used to effect, but it is a hot color and not at all refreshing in its suggestion. For most situations I find the plain, broad (about 6 inches each), solid, alternating stripes of dull green and white altogether the pleasantest and least obtrusive. When scallops are used to finish off let them be broad and square, following exactly the alternating lines of color.

A more leisurely but perhaps ultimately more delightful way of achieving overhead shelter is by the vine-clad pergola; and for this purpose the Caco Grape is in all respects admirable. It grows quickly and freely and suffers little from mildew or other pests. In three or four years it becomes a perfect sun shield, with intelligent pruning that throws its strength into luxuriance of leaf rather than of fruit, though even when thus deliberately pruned for foliage it still continues to bear fruit of equal quality but lesser quantity. The vines must be trained to overhang the west or south or sun side till they sufficiently shade the floor of the pergola much in the manner of a boy's cap whose peak protects without shutting away air and light. It is quite obvious, of course, that the densest of overhead shade will not make a terrace habitable when the sun begins to slant unless it has a bit of side-curtain too, as it were. The Beta Grape and the old-fashioned Concord are also amenable and friendly allies in the matter of making shade.

Of Walks and Walls

USUALLY a walk runs down from the terrace, linking it with the garden at large, and is apt to follow the terrace in style and material or is bound to it by at least a partial repetition: as, for instance, a gravel path with an edging of brick may run off from a brick-laid terrace without perceptibly jarring the general scheme though probably nine times out of ten the all-brick path will look better.

Broken flagging is especially good with colored slate and the slate-paved terrace is delightfully accompanied by a walk of the water-worn flagging which is found and gathered from the bottom of a few of our rivers. These stones are exceptionally thin and smooth with a ripply smoothness full of character and variation like the palm of the hand. They make fine paths, particularly of the stepping-stone type, as they can be laid right on top of the turf without any preliminary preparation or excavation and if stamped on hard, will firmly establish themselves in a season. This extremely simple process is possible, however, only where there is already a good lawn; it is sometimes necessary to excavate a few inches and put in under each stone some cinders and sand. Slate may be laid in the same fashion though it is always wiser to have a foundation when laying a well-thought-out walk which is in no danger of having to switch its course. The advantages of the first-mentioned method are apparent where a change is contemplated or liable to occur. And, incidentally, stepping-stones should be spaced to comfortably meet the gait which is not an unswerving line but a faintly curving zigzag as the weight swings from one foot to the other. About twenty inches apart from center to center is a normal distance for placing the stones.

Along paths leading to a rock garden place rough stones, the rougher the better; and after embedding them firmly, plant Ivy or other creeping greenery between that will veil their

crudity and accentuate their loveliness by giving glimpses of the gray beneath.

Aside from the welcome seclusion it brings and from the fact that it furnishes an attractive frame for a garden, the wall oftentimes becomes an arresting feature in itself—the play of surface light and shadow, a flowing and varied line will lift it to distinction. A happy flow of line is essential—from wall to teahouse roof, down again to coping, up over the arch of a gateway—break and diversify as you will, but create a feeling of oneness.

In walls as in walks there is again a choice of materials and again the limiting consideration that this must be part of the whole plan—dwelling and terrace and walk and wall all of a piece, as it were. Modern cement offers a flexible and artistic medium as it may be tinted to almost any color and made to display very interesting texture by skilful trowel work applied while the surface is still plastic. A buff-colored stucco with coping or trimming of red brick is one of the many successful combinations of two materials.

Brick has decided vivacity, particularly among the less hackneyed sorts, and such friendly enduringness of aspect that nothing has yet superseded it for certain purposes. No vocabularly truthfully conveys its fascinating divergencies of color—we talk about "red" brick thus clumsily designating the infinitely various hues of Holland brick, pinkish like dying embers and flecked with chrome yellow; or referring perhaps to the subdued terra-cotta of the "clinker" with its almost iridescent smoky overlay, or to the once despised and now popular "culls" so similar and yet so individual in character.

There are many ways of building an all-brick wall—many very interesting ways. A simple and commonly used trick to create variation of surface and vibration of color is by raking out the joints, thus creating hundreds of little shadow lines that make the wall almost live. The "headers" too (brick laid endwise to tie the wall together) lend variety of color and texture, as do the pilasters put every six or eight feet apart for reinforcement. The pilaster is frequently topped by the familiar Italian pot which seems somehow especially fitted to such uses by reason of its shape, and perhaps by reason of its long tradition too. Filled with trailing or gay-bloomed plants these pots sometimes furnish a final needed touch.

The wall niche is quite in keeping in an elaborate garden but seems to me somewhat too pretentious for the more modest types or for the small city garden—it gives a kind of gallery effect overly striking except for the large-scaled plan; it is really an architectural feature belonging legitimately in the bigger garden. Accents or focal points can be secured in small gardens by tall, stately trees, Junipers and Arborvitaes—indeed the tall columnar Juniper (Red Cedar) is almost indispensable for such purposes. Small bronzes too may be safely introduced.

The wooden fence, though less durable than stone or brick or cement perhaps, still holds its place and for some houses is the only suitable frame. There are, of course, attractive standard patterns—Colonial and the like—and among newer sorts the woven wood fence seems desirable for many situations.

Seats Which Invite

THOUGH much has been written and said on behalf of furniture for the garden, as an actual fact there is still a dearth of seats in the average small garden; and even in many a large one it has been my lot to wander vainly seeking a comfortable spot to linger and enjoy.

It is self-evident that for comfort a seat must be placed in shade and seclusion and always at the end of a walk or vista or some place where it has a meaning—perhaps, for instance, the place where you would hesitate and want to look in both directions in strolling through the garden; or near a pool. Water has a strong fascination, particularly moving water which murmurs or falling water with its tinkling little song, so curiously alluring. The play of light and shade is part of its fascination too.

I remember, in particular, a Southern garden with four curved seats at the four corners of a pool and a lantern at the end of an adjoining pergola which shone on the pool at night and threw its shadow by day. The owner of this garden told me that though there were a number of other conveniently situated seats, this pool drew people to itself, that both his visitors and his family inevitably gravitated there—and stayed. Small points like this may seem neglible in the making of a garden but it is after all the subtleties, the sympathetic individual touches in gardens, as in friends, which capture and delight.

For the permanent seat probably nothing surpasses the classic Grecian stone for service and a sense of durability. Lighter pieces of furniture that can be shifted about from terrace to trees or from one part of the lawn to another are, of course, as necessary a part of the garden equipment as they are of the living room. Solid rattan with the bark left on is by all odds the most satisfactory. It is woven without nails and with a wide apron or flounce at the bottom instead of feet and does not dig up or injure a fine turf. The bark is smooth, hard, firm, and absolutely impervious to weather—it is quite unlike the stripped rattan commonly seen and, besides being much more durable, is more "out-doorsy" in character and hence more suitable for garden use.

Inside the Teahouse

A GREAT many objects not ordinarily associated with gardens can be brought in by putting them under adjoining shelters as afforded by teahouse or covered terrace.

Mirrors are occasionally found on sunporches or in sunrooms but scarcely ever do they wander further, yet I know of at least one teahouse where they have been used with remarkable effect. It is in a North Carolina garden, a teahouse of three sides and opening full upon the garden picture. It is really lived in and has a complete little outfit of china and so forth for afternoon tea and light evening suppers. These things are tucked snugly out of sight in panelled cupboards faced with mirrors set flat and held in place by unostentatious strips of wood so that they appear as an integral part of the panel. You've no idea of the sense of spaciousness they give and how the garden sparkles back! It is absorbing to watch the changing color, the sway of greenery, and the drift of cloud repeated here almost as if these quiet receptive silver surfaces brought to life another garden. We have enough of the child in us still to love gazing-globes too and so they continue to find a place in many gardens.

All such things must, of course, be skilfully set with just the right background, emphasis, and relation to the plan as a whole, otherwise they are liable to appear comic and distinctly out of keeping.

The fireplace, too, often adds a welcome friendliness and contributes definite comfort to outdoor living as hunters and fishermen and campers in general well know. Happily it is becoming more and more a feature not only of the closed sunroom but of the open terrace and garden house as well.

Materials for the garden house are many and will obviously be chosen with due regard to the other features—terrace, walks, walls and so on, and all of these, of course, in harmony with the dwelling itself. Besides the brick, cement, and slate already described there is available nowadays a pitted asbestos shingle which appears peculiarly fitted for small structures like the teahouse. It comes in five colors—all good—and has an interesting rough edge reminding one of a de-luxe deckle-edged paper.

With so much at its command there seems every reason in the world why the garden should cease to be the scene merely of frantic grubbing or leisurely strolling and become the firmly established center of daily living.

Mattie Edwards Hewitt, Photo.

"THE WALL OFTENTIMES BECOMES AN ARRESTING FEATURE"

"There are many ways of building an all-brick wall—many very interesting ways. The play of surface light and shadow, a flowing and varied line will lift it to distinction. A happy flow of line is essential—from wall to teahouse roof, down again to coping, up over the arch of a gateway—break and diversify it as you will, but create a feeling of oneness. Brick has decided vivacity, particularly among the less hackneyed sorts, and such friendly enduringness of aspect that nothing has yet superseded it for certain purposes." Garden of Mrs. H. W. Croft, Greenwich, Connecticut; James L. Greenleaf, Landscape Architect

The National Garden Association

Formed to promote the annual observance of National Garden Week

LEONARD BARRON, F.R.H.S., President

Honorary Vice-Presidents: J. HORACE MCFARLAND, MRS. FRANCIS KING, MRS. RUSSELL TYSON, MRS. THOMAS G. WINTER, MRS. SAMUEL SLOAN, MR. FREDERICK NEWBOLD, MR. ROBERT PYLE, MRS. JOHN D. SHERMAN.

Coöperating Societies: NATIONAL PLANT, FLOWER AND FRUIT GUILD; AMERICAN DAHLIA SOCIETY; AMERICAN IRIS SOCIETY; ONTARIO HORTICULTURAL ASSOCIATION; AMERICAN FORESTRY ASSOCIATION; WOMEN'S NATIONAL FARM AND GARDEN ASSOCIATION; WILD FLOWER PRESERVATION SOCIETY; NATIONAL HORTICULTURAL SOCIETY; THE AGASSIZ ASSOCIATION; THE SCHOOL NATURE LEAGUE; SOCIETY OF LITTLE GARDENS.

THIS month The National Garden Association celebrates its first birthday! For the last twelve months, it has endeavored to reply helpfully to every letter sent it for aid—some thousands in all. It has assisted in the formation of garden clubs in every state, sending free of charge constitutions, by-laws, and programs. It has successfully conducted the second observance of National Garden Week. And it has gathered from every possible source information of value to garden enthusiasts.

The need of this association and its worth has been clearly demonstrated and it is with the keenest pleasure that its officers are outlining new and broader plans for this coming year. Before announcing these new plans, in fact in order to complete them, we should like suggestions from each of our readers:

Do you like this department in the magazine?
Has it helped you? How can it be more helpful?

"Cleanliness is Next to Godliness"

THE date for National Garden Week for 1925 has been decided on, April 19th to 25th, a time which seems most nearly to meet the spirit and needs of the country in general, with a special date for the Southern section, the first week in November of this year. From the many worthwhile undertakings of this year a few stand out as pointing the way for 1925.

One of the most practical was the Clean-Up Week observed in Pennsylvania. Appeals were sent by the officials of the State Departments of Health, Forests, and Waters to prepare for a thorough clean-up. Not only the cities were included in this but also the remote localities. Forest wardens, state police, and health officers directed this crusade to eliminate dirt, fire hazards, and conditions menacing the public health, with special attention to breeding spots for flies. The program provided for a specific piece of clean-up work each day in the week. Such a week should be a part of the 1925 National GardenWeek program in each state. F. P. Willets, Secretary of Agriculture for Pennsylvania, has already promised this for his state in a recent letter:

> It would be satisfactory for this state to have Clean-Up Week the same date as Garden Week with such publicity as will call it to the attention of the public. I believe this will be of very great benefit.

National Garden Week is including every phase of community activity. This is a logical sequence—gardens mean cleaning-up, clean surroundings mean better health and better homes, better homes mean better citizens and better children, better citizens mean civic clean-up campaigns and work for better towns. And so this work that starts in a garden grows and spreads in each community, taking in conservation, protection of wild life—both plant and animal—supervision of highways, parks, and playgrounds, and even living Christmas trees! To coördinate the many helpful national organizations behind these splendid activities is the special privilege of the National Garden Association.

Cherishing Nature's Treasure

THE Permanent Wild Life Protection Fund sends us this message for each of you:

> The wild life of to-day is not wholly ours to dispose of as we please. It has been given to us in trust, we must account for it to those who come after us and audit our records.

This concerns each of us and—as long as the supply lasts—copies of an interesting booklet, "The End of Game and Sport in America," by William T. Hornaday, will be mailed without charge to any one sending in their request to this society, at the New York Zoölogical Park, New York City.

Another organization is working to save the giant trees of California from the lumberman's axe. This is the SAVE THE REDWOODS LEAGUE and if you wish to help in this work of such national importance write to Robert G. Sproul, University of California, Berkeley, California, who will gladly send you full information.

And also from Berkeley comes another interesting story. To cover up the burned areas (due to the big fire at Berkeley) the Garden Club of Alameda County chose—as their share of Garden Week—to assist in replanting all the lovely gardens destroyed. The Club acted as a clearing-house to put those who could give seeds and plants in touch with those who needed them. Truly, there is no boundary to a garden nor to its civic worth and work!

The Garden's Contribution to Christmas and the Children

AT YOUR SERVICE is the slogan of the Playground and Recreation Association of America with headquarters at 315 Fourth Avenue, New York City. Through correspondence and leaflets, this society is prepared to furnish general information on school gardens, children's gardens, etc., and will send you without cost a booklet listing their helpful publications. The following, as well as many others, are free:

What One Neighborhood Center Did	The City and the Child
Training Young America for Citizenship	Rural Recreation

Literally this association is at your service and may be able to help your city do what has been done in Oshkosh where a Boys' and Girls' Garden Club of 445 members has been founded.

Each activity leads us right back to a garden. And we would mention here the earnest work of Mrs. Warder I. Higgins, President of the Rocky Mountain Garden Club. Not only is she successfully striving to make the whole state of Montana one of garden beauty but she is also endeavoring to get the coöperation of every town in the country in planting community Christmas trees. What this would mean in the way of conservation and community interest is beyond conjecture.

And from Springfield, Mass., comes the report of one Garden Week activity that should be followed by every city or town wherever possible. Here enough money was solicited to enable a truly lovely garden to be made and *maintained* around the Home for Crippled Children! If National Garden Week has accomplished no more than this one thing, surely it has not been started in vain.

And have you any flowers to spare for the city's sick and helpless and crippled—you, who commute to New York or Chicago or Philadelphia? Then why not take them in and leave them in the big railroad terminals at the booths conducted by the National Plant, Flower, and Fruit Guild? Why not help this society that is working to make the wealth of the country meet the needs of the city? And why not urge your neighbor to take his flowers in or take them in for him? Of course, it means a little planning, a little time, but if you could follow one of your Roses to the hand of some sick little child, you would begrudge neither time nor trouble!

Bulletins on Request from the National Garden Association:

Programs for Garden Clubs, Constitutions, and By-laws
Insects Injurious to Ornamental Greenhouse Plants
Diseases and Insects of Garden Vegetables
Rural Recreation and Planning
A Day at Jackson's Mill (booklet for West Virginia only and one that every West Virginia club should have)

National Garden Week for 1925 to be observed April 19th–25th

THE POOL AS THE FOCAL POINT OF THE GARDEN COMPOSITION

"Pools add greatly to the beauty and quiet peace of gardens. They serve two purposes; that of a mirror to reflect the sky and surrounding verdure, and for water plants and goldfish." This simple circular looking-glass type, likè "a bit of the sky fallen through from on high," makes a delightful pivot for surrounding bloom. Home of Mrs. George Barton French at Southampton, L. I.

FOUNTAINS WHICH MAKE FAIRY MAGIC IN THE GARDEN

AMY RICHARDS COLTON

Decorator, Author of "Choosing Chintzes for Sun-room and Veranda" (May, 1924, G. M.) and other articles

The Murmur and the Mystery of Water Weave a Soothing Enchantment that Dispels Weariness and Lends Sparkle Even to Commonplace Plots or the Tiniest of City Backyards

ARTIFICIAL pools and fountains have always formed the center of gardens designed for out-of-door living. The word itself comes from the Latin *fons* which signifies water gushing from a natural spring. Shelley's lines are familiar:

> "Arethusa arose
> From her couch of snows,
> In the Acroceraunian mountains,
> From cloud and from crag,
> With many-a jag,
> Shepherding her bright fountains."

And doubtless from this natural model many of the intricate artificial cascade effects were evolved by the ingenious beauty-loving landscape architects and sculptors of the Renaissance and Eighteenth Century.

Like most arts, that of gardens—in which fountains and pools are naturally included—comes to us from the East. India, China, Japan, Persia, Egypt, all had them as part of a decorative scheme which included the house. A great many of our fruits, flowers, and architectural ideas concerning gardens have come down to us from these far- and near-eastern countries, filtering slowly through the early Greek and Roman civilizations and that of Italy and Spain, to northern Europe, and so on in turn to the New World.

In Oriental countries the garden was a place of seclusion for family life, a cool and grateful refuge from the tropical heat, and a pool or fountain was usually the center on which the whole plan and life of the garden pivoted. Sometimes running water was introduced by diverting a natural stream or by bringing it in canals from a distance. If there was

WALL FOUNTAIN FOR GARDEN OR SUN-PORCH

A vivacious and distinctive rendering of the familiar and pleasantly convivial grape and bacchante motif in terra-cotta and natural color cement against cement wall with coping of terra-cotta brick; designed by Maude S. Jewett and exhibited by the East Hampton Garden Club at this season's International Flower Show, New York

THE climate of many parts of the United States has almost tropic summers, and in addition to that, our wealthier families are building themselves Aladdin's palaces from southern California to Florida in order that summer may be gained all the year. This means that life out of doors is increasing and the need of gardens as places of refuge from our too concentrated and hectic lives is being felt and craved.

In early days our forefathers turned to English gardens as models that harmonized with their Colonial or Georgian houses, but now interest in the open-air life of southern California and Florida has brought with it adaptations from Spain and Italy. For centuries Southern Europeans have used their gardens for family life more than for utilitarian purposes, and both Spain and Italy give us an infinite variety of models in the sense of the house being the center of the scheme.

All these gardens give opportunities for fountains, pools, streams, brooks, and small lakes. There is no need to slavishly copy the Old World, but only to take suggestions and inspiration, developing these to fit our own needs and the topography of a particular plot of land.

There are few regions in the United States where water is not plentiful and therefore, the use of it for decorative purposes should increase. At the Vanderbilt Estate, Biltmore, N. C., the landscape scheme is on a vast scale and water plays an interesting part. The French Broad River is included in the middle distance and this again is diverted to form a lagoon, which lies at the foot of the mountain whose top was levelled to build the house and formal gardens on. Biltmore House, its gardens and its approach, are an interesting adaption of old French château architecture to an extremely

POTTERY GIVES BRILLIANT COLOR

"A number of artists are beginning to design and model fountains in pottery, glazing them with brilliant colors. This idea comes to us from the Orient and later through Spain." Two wall fountains designed and executed by Susan W. Tyler in Persian blues, greens, and grays

no possibility of a fountain or cascade there would surely be a pool.

In many parts of India and China water was plentiful enough for liberal use, but in Persia, an arid country, only the rich could attain fountains or pools by means of a primitive irrigation system which brought water from a great distance. The poor placed a jar of water in the centre of the garden as a suggestion or symbol of what they could enjoy only in imagination. Egypt had elaborate still-water effects, made by drawing the waters of the Nile into canals. In these canals grew the famous Lotus, the symbol of immortality.

The drier the country the more passionately the dweller therein longs for water and green foliage, and it is no wonder that much labor, wealth, and thought were spent in the Orient on gardens and fountains. The combination of heat and lack of water made those containing pools or fountains very oases of life. Moreover, for the seclusion of the women and children, this green place set apart, cage though it might be in fact, was at least one furnished with every comfort for the body and beauty for the eye. When the heat of the day was over the household assembled there for conversation, music, dancing, and play for the children. With the sound of running water, the song of birds, the scent of tropical flowers and delicious fruits to be eaten for the picking, the gardens of the East were a boon to those who gathered in them after the heat of the day.

wild and picturesque region of the New World. The blending of the two has been marvelously accomplished, and in the accomplishment water plays an important part.

Another interesing scheme for a house and garden, with a unique water feature, grew from an old quarry that had filled with water—the house was built close to it, of stucco, Italian villa fashion, with steps leading to the water. By the addition of judicious planting a desolate bit of rocky land with an abandoned quarry in the centre and a view of the sea beyond, became a highly original habitation, where house and land appeared so closely knit that they seemed created for each other.

IN southern Europe the summers are so long and hot, that lawns as we or the English understand them can only be cultivated with the greatest difficulty and the "tapis vert" is a small and cherished spot. This leads to the necessity of producing verdure by means of great varieties of evergreens, and as flowers throughout the summer flourish no better than the grass, potted plants are much used. Above all, there are endless water effects. Fountains of every kind, pools and streams, and everywhere the sound of water, trickling, gurgling, rippling, falling, splashing.

In France, where there are so many elaborate fountains, the water itself is often turned to account as part of the design—the various jets rising and falling at different angles and at different heights, form patterns that change as the water shifts, like a kaleidoscope.

Both Spain and Italy, in the height of the Renaissance, developed what they called "secret fountains" arranged by means of skilfully concealed pipes, parelleling paths and flights of steps, or placed in grottos. These could be turned on suddenly by some secret cock and, where no water had been suspected, there would be instantaneously myriads of sparkling jets forming patterns and sprinkling the unwary visitor who did not know the secret of the concealed fountain.

WALL FOUNTAIN WHICH LIFTS A CONVENTIONAL CITY GARDEN OUT OF COMMONPLACENESS

"In New York the unsightly backyards are gradually being transformed into gardens, which for lack of good soil and pure air must depend largely on potted plants, sculpture, and fountains to give the magic of gardens." A solution of simple distinction by Ruth Dean, Landscape Architect

THERE has always been endless opportunity for sculptors to design fountains, and this opportunity is open now as never before in our own country. Happily it is already being seized and many of our best sculptors are designing both wall and free-standing fountains that can be cast in bronze or cut from marble or stone. These are in the nature of things costly, and perhaps for this reason, added to a craving for color, a number of artists are beginning to design and model fountains in pottery, glazing them with brilliant colors. This idea comes to us first from the Orient, and later through Spain, but in these countries it was more apt to appear in the form of tiles, cemented together and formed into a fountain (see page 149, Nov. 1922, G. M.). The pottery fountains are usually modeled in a few pieces, cemented together later, and the patterns are usually in simple relief, or incised; and the glaze is, as a rule, one color, though sometimes a neutral tone is chosen for the outside of the fountain, and brilliant blue or green reserved for the lining of the bowl.

Pools are more effective if the level of the bowl is kept low, and the water filled to the brim. If the level of the water is that of the surrounding garden the best effect is produced. Where a fountain or pool is sunk below the level of the garden it should have steps leading down to it or even into it.

In public parks a fountain is often placed at the end of an important vista, or in the center of a large scheme, and this may also be true of a formal private garden. But the fountains that have the greatest charm are those one comes on unexpectedly,

AN "ALADDIN'S PALACE" OF MODERN MAKE

"The climate of many parts of the United States has almost tropic summers, and our wealthier families are building themselves Aladdin's palaces from southern California to Florida in order that summer may be gained all the year." Mariada, the winter home of Mr. Leonard M. Thomas, overlooking the lake at Palm Beach

as centers of some out-of-the-way nook, surrounded by a hedge, or concealed in shrubbery with the sky reflected in the water, the whole forming a charming and unexpected design. In these enclosed spaces the spray should be kept low; high only for vistas and large spaces.

Pools also add greatly to the beauty and quiet peace of gardens. They serve two purposes; that of a mirror to reflect the sky and surrounding verdure, and for water plants and gold-fish. It is well not to over-plant them, as this interrupts the view which they may be the center of. There are many delightful native water plants and there is endless pleasure in collecting them to form water gardens, and they have the practical value of being hardy. The yellow "Cow-lily," the familiar white, sweet smelling Water-lily, Pickerel-weed with its blue spikes, Arrowhead, and the brilliant solitary Cardinal-flower, Royal Fern, Marshmallow, Pitcher-plant and some of the Orchids, are among the commonest and all are sufficiently decorative to be worth cultivating.

IT IS not only those who are fortunate enough to live in the country or spend long summers there, that are becoming absorbed in the fascinating pastime of gardens, but those enforced city-dwellers, who above all people need the repose of green foliage and the sound of running water.

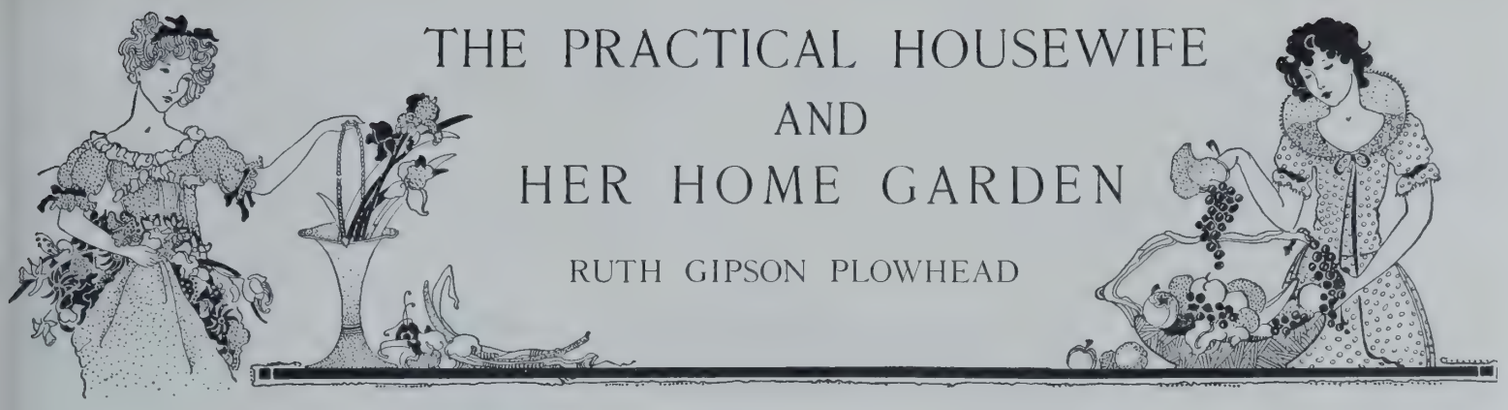
In New York the unsightly backyards are gradually being transformed into gardens, which for lack of good soil and pure air must depend largely on potted plants, sculpture, and fountains to give the magic of gardens. Either wall or free-standing fountains are easily installed, and are certainly a welcome sight and sound to any tired and dusty person at the end of a day's work.

In planning water features for a garden one should not forget a bird-bath, another opportunity for a sculptor and one especially adapted to colored pottery.

Once upon a time fountains were associated with the estates of the rich, and were thought of as monumental affairs, but in these days, when a public water supply is accessible to nearly everyone for a reasonable price, there is no reason why any garden in town or country should be without at least a jet of water falling into a basin, and the spiritual reward is way beyond the material cost. Running water is full of magic to smooth out ruffled thoughts, and as a help to peace of mind is highly to be recommended.

FOUNTAINS THAT LEND GAIETY

"In Oriental countries the garden was a place of seclusion for family life, a cool and grateful refuge, and a pool or fountain was usually the center on which the whole plan and life of the garden pivoted." This is becoming increasingly true here in our newer land and wherever there is a fountain there folk inevitably gravitate, drawn by its cool and refreshing suggestion. Two designs in glazed pottery by Jessie A. Stagg; wall fountain at right in green and brown, and that shown above in rich Persian blue



THE PRACTICAL HOUSEWIFE AND HER HOME GARDEN

RUTH GIPSON PLOWHEAD

Canning Fruits and Vegetables by the "Fancy Pack" Method for Pretty Effect and Appetizing Flavor—Prize Winning Jellies and Jams for Holiday Gifts and the Home Table

EDITORS' NOTE: The garden is, of course, not merely an outdoor plaything but an integral part of the household's life, contributing not only diversion but often a very substantial share of the day's menu. The most carefully raised vegetables, the most delicious of fruits, the loveliest of flowers may come to naught through careless or ignorant handling by those indoors, thus nullifying the gardener's best efforts and completely discouraging their renewal.

Intelligent housewifery is the garden's best ally; therefore we take pleasure in announcing the establishment of a new department—The Housewife and Her Home Garden—which will include each month matters of specific interest to the "lady of the house"—recipes, articles on flower arrangement, table decoration, food values in relation to family health, and all the diversified activities and interests of a competently run ménage in whose success the garden is an important, if silent partner.

THOUGH we read many articles upon canning, we seldom find one which gives us directions for producing the "fancy pack"—the nearly perfect jar of fruit, faultless in color, form and taste, which looks almost too good to eat and tastes as good as it looks. Even when not canning for exhibition, there is a great satisfaction in putting up a few fine jars for special occasions and so here are some hints which have helped me turn out many prize-winning jars of fruits and vegetables.

First as to jars: The most important thing is to have a clear colorless glass without flaws, for the clearer the glass the more transparent the syrup will look. It seems to me that a decided greenish or bluish tint to the jar makes the fruit look rather cloudy. The shape and kind of jar does not matter so much though a wide-mouthed jar permits of easier arrangement of the fruit, and is almost indispensable in canning the larger products. Polish your jars inside and out with polishing powder until they glisten and sparkle.

The quality of the syrup depends upon the tastes of the family and the product canned, but for most fruits I make a syrup in the proportion of one cup of sugar to one and one-half cups of water and boil five minutes.

All fruits and vegetables should be stored in a dark place as soon as cool to prevent bleaching and loss of color.

It is the trifles in fancy canning which make for perfection and while these details mean much work the results well justify the time spent.

FANCY FRUITS AND VEGETABLES

Strawberries: These are quite difficult to can nicely as they often lose their color and rise to the top of the jar. Choose a dark red, firm berry, red clear through to the center. Over each quart of berries used, sprinkle one cup of sugar and let stand in a cool place for several hours. Put on the stove in a granite kettle, bring slowly to a boil, and let cool. Then dip out the berries, place carefully in the jar, filling very full; over these pour the syrup, which has been heated, place in the sterilizer and boil seven minutes. It will take several quarts of berries to make one quart of canned fruit but you will have a red shapely berry, which does not rise to the top.

Raspberries: Should be canned as soon as possible after being picked, as should, for that matter, all soft fruits. Over-ripe berries must never be used. By placing the jar on its side and sloping it a little the raspberries may be arranged in symmetrical rows; small forks are a help in keeping the berries in place. By gradually shifting the jar and filling in the center space one can get a beautiful fancy pack and the berries will keep in position almost perfectly. Of course, use only the firmest and largest fruit for the outside rows and pack the inner layer very full. If you are fortunate enough to have access to a berry patch, choose your fruit and can at once; otherwise take the choicest fruit from a crate and use the rest for jumble pack or jam.

Apples and Pears: Use the variety which in your locality is the whitest meated and the most fine grained. Do not have the fruit ripe enough to be really soft. As the fruits are peeled and halved drop into a pail of cold water containing a teaspoonful of salt to each quart of water. This helps to keep them white. Exposure to the air, even for a short time, also causes discoloration, so work quickly while packing the jars. The prettiest pears we ever canned were cut in eights lengthwise and fitted along the sides of the jars. It is often easier to get a nice pack this way than by canning in halves.

Apples may be arranged this way or cut in rings like canned pineapple making the hole in the center with the apple-corer. Slices of lemon or orange placed along the sides of the jar gives an attractive touch. Boiling too long will cause either of these fruits to turn dark, so boil the shortest length of time prescribed for your altitude—probably fifteen or twenty minutes.

Peaches: Choose those which are quite firm as any soft or bruised spot might show up in the canning. These are blanched one minute in boiling water, cold dipped in salt water, and then sliced very thinly or canned in halves. Several blanched peach pits added to each jar improves appearance and flavor.

Apricots: These may be peeled or not according to taste. Peeled apricots cut into halves make an attractive effect or one may use the small apricots unpeeled, and cut them into very thin slices. Where one is exhibiting a collection it makes more variety to have the fruits as different as possible.

Soup Mixture: A most effective soup mixture is made by filling the jar with layers of chopped or ground vegetables, packed so that the colors harmonize. Each layer may be from one-half to one or more inches deep, according to the size of the jar. A good combination starting from the bottom layer up is: white corn, ground carrots, green string beans, ground onions, a layer of tiny red cherry tomatoes, or ripe tomatoes cut in small pieces, chopped celery, new peas, and white string beans. Of course, all these must be blanched and cold dipped and cooked as long as the vegetable requiring the most cooking. This is canned with salt water for the liquid and is to be added to the meat broth at the time of use.

Tomatoes: This is a showy vegetable when well canned. I have seen tomatoes cut in thick slices and canned so as to keep their shape perfectly, but a small tomato of the salad variety used whole is, as a rule, more effective. Choose deep red tomatoes and those of uniform size. Blanch only long enough to loosen the skin, be sure that the fruit is not too soft, and handle carefully if you want a clear transparent jar. If the tomatoes are too ripe or are handled too much, there is apt to be a layer of sediment in the bottom of the can.

Other Vegetables: Long slender yellow string beans canned whole look well in an exhibit; cauliflower divided into even little headlets; one single ear of corn packed in a jar; and carrots, either canned whole

or cut in very tiny rings, and arranged symmetrically around the sides of the jar. Peas and carrots look well canned together, either in layers; or the whole jar carrots, with a layer of peas in the middle. Beets will keep their color if blanched with the root and part of the top on, then cold dipped, peeled, and canned according to the approved cold pack method.

It is wise to cool vegetables which are difficult to keep as quickly as possible. One may do this by putting the hot jar in a pan of warm water and placing under the cold faucet so that the water will drip slowly into the pan (not touching the jar). The cooling will be slow enough so that there is no danger of breaking the jar.

FOR CRYSTAL CLEAR JELLIES

IF YOU are one of those who really enjoy cooking, and occasionally spend a whole morning experimenting in the kitchen, taking plenty of time and pains for the sake of results, you can turn out some exceptionally attractive jellies and jams. There is a clearness and transparency about the well-made glass of jelly that puts it in an entirely different class from the careless product we often see In the chemistry of cooking there is always a surprise to me to find that adding sugar to hot fruit juice will result in a perfectly moulded glass of jelly. If you examine carefully the blue-ribbon collections at exhibitions you will find them often as translucent as colored water.

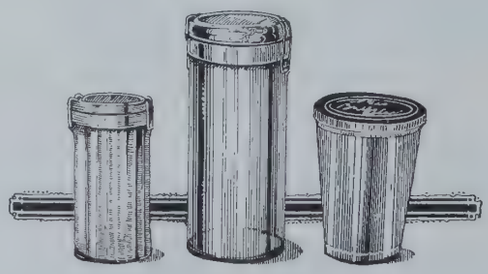
A muddy appearance in jelly is caused by: cloudy glasses; insufficient draining through too thin a bag; stirring the fruit too much when boiling; squeezing it when draining; and by careless boiling, especially on a cloudy day.

Choose the thinnest, clearest glasses you can find. When ready for use, polish them with suds and polishing powder, and a lintless cloth or tissue paper, until they sparkle. As psychology of appearance plays its part choose glasses of attractive shape. For exhibition or gifts, I always like the tall slender shapes. When jelly is to be turned out from its mould for special use on the table, a flatter container is better.

If the jelly is for exhibition it is perhaps wiser to attempt no ornamentation. Use neat attractive labels, and paraffin for the seal. If you want the jelly for gifts, or for sale at bazars or shops, you may cut white paper rounds a little larger than the top of the glass, and decorate them according to your artistic ability. A gay ribbon tied about the glass at the last minute, with a bright flower tucked in the folds, makes this quite a festive gift.

For the draining bag a heavy substance is best. Canton flannel is probably as good as anything. Remember that this differs from outing flannel in that it has a heavy twill on one side. Keep the twill outside, so that there will be no fuzz or lint in the juice. A light grade of white wash silk is good for the last draining. Place the jelly drainer where it does not need to be moved at all, and neither stir the fruit when boiling, nor squeeze the bag while the fruit is dripping. After you have used this first juice for your fancy jelly, boil the fruit once or twice so that it will not be wasted, and use it in making "every day jelly." Make all jelly on a clear, sunny day. As practically all jelly is made the same way, the directions for the currant jelly will do for all. The only difference in the berry and hard fruit jellies being that the latter require longer boiling and the addition of more water in the beginning, as they are less juicy.

Currant Jelly: Pick currants from the stem and wash well. Use a little less than half as much water as there is fruit, and boil without stirring twenty minutes. I prefer a heavy granite kettle, but whatever you use, choose nothing which could cause the fruit juice to turn dark. Place the fruit in the draining bag, and hang where it can drain undisturbed for several hours, or better still, over night. A little sediment will always form in the bottom of the container, so pour the juice very carefully into another draining bag, discarding the liquid in the bottom. Drain and measure the juice and put on to boil. For each cup of juice, allow one cup of sugar. Fruit for jellies should always be a little under-ripe; but if you are using fruit a little riper than it should be, use a little less sugar and a little less water when you put it on to boil. Boil the juice twenty minutes, and have your sugar heating in the oven. Stir in the sugar, and let boil about five minutes. Use your accustomed jelly test. My best guide is the way the jelly boils. If it threatens to rise to the top of the pan, and boils in thick, light bubbles it is almost sure to be done. Have the heated glasses ready, and pour the liquid through a small strainer (lined with thin China silk) placed in the top of the glass. This final draining is for the sake of removing any lint or sediment which might result from the sugar. Place the glasses in the bright sunlight for several days before packing them away.



Large mouthed jars with straight sides are especially desirable for canning whole fruits and vegetables and come in varying sizes from ½ pint to 28 ounces

For making crab, quince or apple jelly cut the fruit fine, and use water until it almost comes to the top of the fruit. Boil until tender, the longer the boiling the deeper the color of the jelly will be. If you want the jelly as light and colorless as possible cut the fruit fine, and boil only a short time. In the case of crab-apples choose the fruit which is yellow. If you want the color deeper, choose rosy apples and boil the fruit a long time. Wild plums and Japanese plums need about the same quantity of water as currants, for they are juicy.

White and red currant juice may be saved, and mixed half and half with those fruits which will not jell without additional pectin. The red juice could be added to cherries, strawberries and raspberries, and the white currant juice to Royal Ann cherries, white plums, and white grapes. Gooseberries, when green, jell well and make a good looking jelly. You may also save crab-apple juice to add to fruit juices which will not jell. Of course, commercial pectin can be used, unless your fruit is to be exhibited and the rules of the contest prohibit it.

DELECTABLE JAMS AND PRESERVES

WHEN making jams or preserves, one thing in particular to strive for, is the retention of color, and in some cases, the shape of the fruit. An aid in this is to measure the fruit, add the same quantity of sugar, and allow it to stand in a cool place for a few hours. The following recipe for strawberry preserves will illustrate the method:

Strawberry Preserves: Use firm, deep red strawberries, and pour over them their weight in sugar. Let them stand in a cool place overnight, or at least several hours. Put them on the stove, and bring to a boil, and then remove the berries and boil the juice down until it thickens. Again add the berries, being careful not to crush them, and boil the mixture until of the right consistency. In making raspberry or black-cap jam, we prefer mashing the fruit, and then following the above directions, though of course in this case none of the fruit is removed when the juice is boiled. The color of the preserves is deepened by letting them stand in the bright sunshine for several days before putting away in the dark.

Apricot and Pineapple Marmalade: This is an unusually attractive jam for exhibition, and is a favorite in many families. Boil two quarts of fresh apricots with half a cup of water to keep them from sticking to the pan. When tender press through a coarse sieve, and add one large can of shredded pineapple, or the same amount of diced pineapple. Use sugar to equal the whole amount of fruit, and boil until thick, stirring often to prevent burning. Walnut meats may be added just before taking from the stove. White grapes and pineapple may be combined in this same way.

Ripe Gooseberry Jam: Ripe gooseberries make a clear, transparent jam. Stem the gooseberries, and put them on to boil in a thick syrup. If you have six cups of ripe gooseberries, use four cups of sugar to one and one-half cups of water, and boil until the syrup forms a soft ball before adding the fruit. Cook until clear and tender.

Tomato Preserves: The clear, unusual red of this jam makes it look well in an exhibit. Pioneers in the new lands where fruit was scarce used this so much that they tired of it, but to many it is still a delicious luxury. Choose very firm, red tomatoes; if possible a large variety which contains few seeds. Peel and cut into small chunks, removing the seeds. Bring to a boil, and drain to remove surplus juice. To each quart of drained pulp, add one quart of sugar, and one lemon sliced very fine. Boil until a thick preserve results. The very small red salad tomatoes may be used and preserved whole.

MAKING MY OWN GARDEN ENTRANCE

L. E. HURST

A Combination Arbor and Seat that Finishes off the Garden Walk and Furnishes a Comfortable Spot to Linger—Detailed Description of Construction with Illustrative Sketches

NO DOUBT there are others who, like myself, wish for some finishing touch or distinctive entrance to their gardens and want the fun of making it for themselves. So I am going to describe my "arbor" entrance in detail though it is not entirely original as I deemed it much better to copy a good design than to originate a poor one.

With the exception of oak for the corner posts and for the corner supports, and the seat slats which are of white pine, the lumber is cypress, because of its weathering qualities.

The posts were not long enough to go into the ground more than 8 in. so a heavy piece of tire-iron about 2½ ft. long was screwed on each one. It would be better, however, to plan longer posts. The lower ends of the posts and the irons were painted with tar paint.

FINISHED AND IN PLACE

The home-made entrance arbor with its comfortable seats on either side as seen from the garden, which is partly enclosed by a picket fence running off from the gateway but hidden from view by the mass of Camomile (Anthemis Kelwayi) and other lusty growing things

It was impossible for me to lift and set the heavy pieces unaided so two men gave assistance on the erection; and if you don't believe a 4 in. piece of cypress 10 ft. long is heavy, just lift one! After the frame was up I painted it, and then added the top pieces which had already been painted. The lattice had one coat of paint before being nailed together, and a second before it was nailed in place on the frame.

It would be impossible to give the present-day cost of such a structure, as prices have changed so much since this was built, but the material used for this one came to about $12.

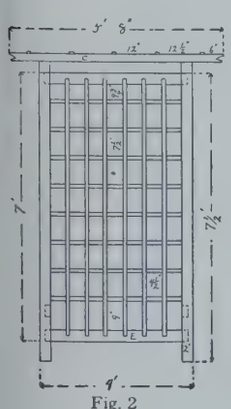


Fig. 2

The structure makes not only an attractive garden entrance but a very substantial one as well and really was not as difficult to make as it would seem.

A white picket fence runs off from the gateway and encloses part of the garden. The pickets of lattice match those of the gate; the posts being 4 x 4 in. oak, set 2 ft. in the ground; and the picket rails connecting the posts 1⅛ x 2½ in. x 14 ft. Unfortunately, the fence is hidden from view in the accompanying photograph by the masses of tall bloom.

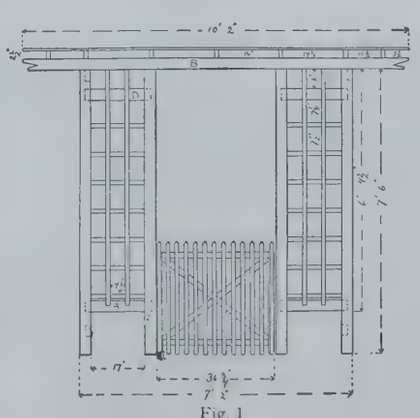


Fig. 1

Its ground dimensions are 4 x 7 ft. For the corner posts 4 x 4 in. lumber was selected and 2 x 4 in. for the cross supports, both of oak. The long pieces are 4 x 4 in. cypress. The 2 x 4 in. pieces are gained into the posts, being an easier joint than a mortise and tenon for an amateur. The lower 2 x 4 in. pieces (A. Fig. 1) are about 13 in. from the ground and on these are nailed the slats which form the seat (Fig. 3,) making it about 18 in. high. The pieces at the top (B. Fig. 1) are notched at the ends, the lower joint being cut slightly shorter than the upper, they project 18 in. over the posts and are nailed through to the tops of the posts with heavy spikes, holes being drilled first as the cypress is very hard. On them rest seven pieces, 1 x 2½ in. and 5 ft. 8 in. long (C, Fig. 2.). It is better to drill holes through these also where they are to be nailed to the 4 x 4 in. pieces. And on these are five strips of lattice the same length as the 4 x 4 in. pieces to form the roof of the entrance. These may be placed closer together, if desired.

The lattice is ⅝ x 1⅜ in. and is spaced on the sides and ends to make the openings about 4½ x 7½ in. The first lattice down from the top in Fig. 2 is even with the lower edge of D in Fig. 1, bringing the second lattice in Fig. 2 on the line with the first lattice in Fig. 1.

The short pieces of lattice in Fig. 1 are 17 in. while the long ones are 6 ft. 8 in. The short cross-pieces A and D (Fig. 1) are 21 in. long while those at the ends (E, Fig. 2) are 45 in. long.

The slats of the seat and back (Fig. 3) are ¾ x 2¾ x 44½ in. and are spaced 1¾ in. apart. The one at the front of the seat rests on the 2 x 4 in. cross-piece, projecting over it about ¾ in., and is beveled off to the post. These slats might look even better if the edges were beveled.

The frame of the gate is of 1¾ x 1¾ in. stuff, the uprights, 27¼ in. long, are joined to the cross-pieces, which are 36¾ in. long; at the corners (as in Fig. 4) the braces are half lap jointed in the center and fit against the cross-pieces and uprights in the corners.

The pickets are of the lattice, 36 in. high, the end ones being placed in the middle of the uprights, the others spaced about 1½ in. apart, the joints being cut off at 45 degrees in a miter-box. Loose pin, butt hinges 1½ in. by 3⅜ in. were used and a hook on the inside for a fastener.

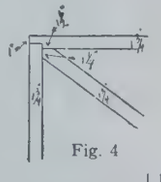
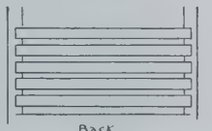


Fig. 4



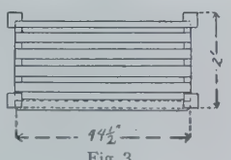


Fig. 3

GLADIOLUS FOR ALL SUMMER BLOOM

SUCCESSION plantings of Gladiolus bulbs made at intervals of two weeks from this time until the middle of July will give spikes to cut until fall comes. If bulbs of equal size are planted at uniform depth the bloom will be pretty nearly uniform too, but it is a good trick for the little garden to take bulbs of various sizes and plant them at uniform depth so that the flowering period will be extended somewhat.

SECLUSION, GAY BLOOM, AND SUNSHINE OFFER MUCH CHEER

MASSED PLANTING LENDS PRIVACY

A Garden That Is Really Livable

Home of
Mr. Richard D. Wyckoff
at Great Neck, L. I.

Clarence Fowler, Landscape Architect
Chester M. Patterson, Architect

Photographs by Harry G. Healy

WHERE TEA AND QUIET AFTERNOONS ARE ENJOYED

THE POOL CONVEYS ITS MESSAGE OF COOL PEACE

A BOTHERSOME PAIR OF JUNE GUESTS

Protecting Your Irises from Borers and Your Garden Crops from Grubs by Cultivation and Cleanly Care

EDITORS' NOTE: Heartily will all gardeners welcome Miss Patch's sane and encouraging statement (see article below) that "in general any management which strengthens the plant will lessen losses from insect injury. A rich soil, well cultivated, may grow crops in spite of an infestation which would be fatal on poorly managed soil."

In these troublesome days of Quarantine 37 with all the emphasis placed on plant disease and none on plant health it is cheering to have such a note of constructive right thinking injected into the negative, repressive pessimism which seems to characterize much of to-day's legislation in regard to plants. Of course, plants have their enemies and of course they often carry germs. So do we all of us! Yet no one suggests that just because the human body is known to give friendly lodging to innumerable germs that therefore all the people in the world be killed off! We may deplore this hospitable tendency in plants and people and the fact that all forms of life are thus interdependent, but no amount of wailing will lead us anywhere—we can, however, line ourselves up with the positive, active agencies that make for life and health. With plants, as with people, the best way to fight disease and render it neglible is by cleanly living conditions, care, and correct feeding—the old, old tale of "the sound body!"

I. GETTING THE BETTER OF THE IRIS BORER

DISCOLORED and dying leaves on the Iris plants are often the first indication that borers (Macronoctua onusta) are at work. Further investigation below the surface of the soil will reveal the worms or caterpillars feeding upon the roots.

These worms or caterpillars, upon hatching from the eggs in the spring, enter the stems and gradually work downward into the roots, eating and growing as they go. The full grown caterpillars or root borers are about an inch and one half to two inches in length. The head of the caterpillar is brown and the remainder of the body is smooth and of a light pink or flesh color (borers on Iris root shown at left).

When full-grown they stop feeding and are ready for that interesting and startling change common to all moths—from caterpillar to pupal or quiescent stage. The caterpillar enters the earth and constructs a cell, where the complete transformation is consummated; the colors of the skin change, fade, and disappear, and this skin is finally discarded. In this pupal condition it can neither eat, fly, nor run, and is a shiny, cylindrical object, chestnut brown in color, and blunt or rounded at one end, the other end terminating in a point. A pupa is shown in the illustration below.

THE LIFE CYCLE OF THE IRIS BORER

Caterpillars or root borers foster their own growth by feeding on the roots of the Iris (above); when full-grown they stop feeding and enter upon the pupa stage (right) emerging eventually as dark brown moths

After sufficient time has elapsed, there is again a change, and from these pupae emerge the male and female moths—the parents of the Iris borers, which are ordinary-looking dark brown moths (pictured below) with a brown body about three fourths of an inch long and a wing expanse of about one and three quarters inches. The fore wings are considerably darker than the hind ones, are mottled with varying shades, and streaked with wavy, indefinite lines of darker purplish brown. These moths fly and mate during the early fall, at which time the female places her eggs along the edge of the leaves and stems of the Iris.

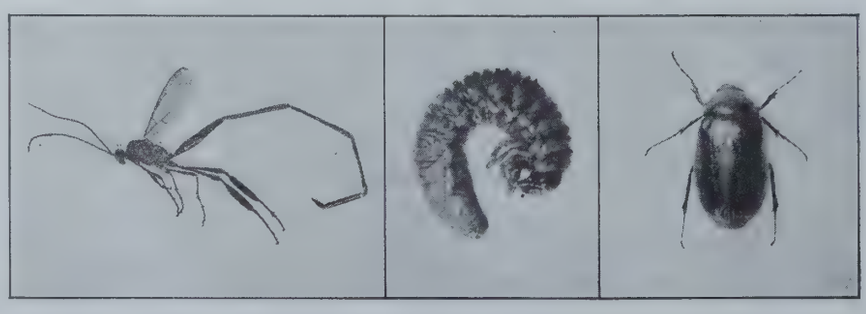
Of the several remedies recommended the most practical seems to be burning the dead leaves and other material on the Iris beds during the winter or spring, to destroy the eggs. Infested stems should be cut out and burned, thus destroying the caterpillars, and this might be followed by digging up the infested roots where the injury is very noticeable—possibly without spoiling the beds. Spraying with arsenate of lead about the time the eggs hatch might be effective, and experiments along these lines should be developed.

A. B. CHAMPLAIN, *Ass't. Entomologist*
Pennsylvania Dept of Agriculture

II. THE JUNE BEETLE NOT SO JOLLY AS HE SEEMS

THERE is something whimsical in our attitude toward the big blundering beetles that come thudding against our windows at evening or into them if they are open and unscreened But however sociably inclined we may feel toward the jolly June-bug who "can buzz and bump his head against the wall," it will not do for us to forget that he is only a grown-up white grub after all; and what gardener has not turned up the white grub in his digging and tossed it savagely to the pet crow or the biddies?

Certainly the white grub is no laughing matter with its destructive habit of spending three years feeding upon the roots of plants before attaining its full size. Then when its underground ravages are over it is necessary for it to experience a period of rest in pupal stage while the transformation to the adult beetle takes place. It is not until the next spring that the "shard borne beetle" breaks from his earthen cell to blunder about, delighting children, scaring girls who fear tangled hair, and celebrating their period of egg-laying by many such incidental excursions.



THE STORY OF A JUNE BEETLE

The white grub (center) sustains himself for three years on the roots of Strawberries, Sweet Corn, Potatoes, Beets, and other garden delectables, also lawns, before reaching the pupal state and his final transformation into the "jolly June bug" (right). Among his natural enemies is the strange parasitical insect shown above (left)

Although grass roots are the native food of white grubs, a great variety of garden plants are liable to attack—Sweet Corn, Potatoes,

Beets, small grains, to mention a few. Strawberries are especially susceptible, and whole beds of these are sometimes destroyed if the plants are set in newly broken or poorly cultivated soil. Young Corn meets the same fate if the grubs are thick. On lawns, as in meadow lands, the grubs are at times numerous enough to kill the grass over large spaces so that the loose sod can be rolled back like a carpet. It is in places like this that skunks wax fat and sleek, for they tear back the dead sod and eat grubs with evident delight.

The white grubs are native insects and are not without natural enemies—besides the above-mentioned skunks, moles and ground squirrels eat them as do the toads and frogs and probably insectivorous snakes. Great numbers of birds feed upon either the grubs or the beetles; among them the robin, catbird, meadow-lark, woodpecker, black bird, crow, owl, and hawk. A few insect parasites have been bred from the grubs, the most common one being a queer shaped insect with slender, crooked abdomen.

Fall plowing, thorough cultivation of crops, and rotation are practical remedial measures. *In general any management which strengthens the plant will lessen losses from insect injury. A rich soil, well cultivated, may grow crops in spite of an infestation which would be fatal on poorly managed land.* Where chickens can run through freshly cultivated soil infested by grubs, they prove efficient aids; and it sometimes happens that the adult beetles are locally so numerous that it is possible to kill them by spraying the trees where they congregate at night with arsenicals. EDITH M. PATCH, *Maine State Entomologist.*

SPECULATING IN IRISES

SHERMAN R. DUFFY

Whither Are We Heading in the Fascinating Game of Breeding Irises from Seed? Of Dukes and Ugly Ducklings Among the Newcomers and the Search for Nobler Parentage

GROWERS of Iris seedlings are much in the position of not knowing just where they are going but of being happily on the way with many great adventures along the route toward a goal at which they may never arrive. Mr. A. J. Bliss (at present the foremost originator of Irises whose introductions are predominant in most of our Iris lists) seeking to breed a crimson Iris or a yellow-grounded Mme. Chereau type found instead Dominion, in many ways the world's greatest Iris, an entirely new type and parent of a new race which is just beginning to reach our gardens.

Fairy, the beautiful white Iris with its delicately blue tinted throat and the scent of orange blossoms, was a foundling.

All of the great Irises originated by Bliss came through his experiments in crossing and growing seedlings with the idea of the red Iris and the yellow plicata in mind. The parents of the great Dominion were not at all unusual Irises: Cordelia, a bicolor of red-toned purples, and Amas or Macrantha, which is common enough in our gardens; and neither one of them high priced Irises.

The gorgeous Souvenir de Mme. Gaudichau was of even more commonplace ancestry: the old President Morel and Dalmatica.

Breeding Irises for our gardens is one of the simplest and most fascinating of pastimes. They are as easily grown from seed as any of the standard perennials such as the Delphiniums, Pyrethrums, Gaillardias, and plants of similar character. Their culture is simple and there is not the long wait for them to bloom that their appearance and massive structure suggests. Some seedlings bloom the second year, as do the great majority of perennials. All should bloom the third season with ordinary care and they usually have made large enough clumps by then so that if a particularly fine variety appears it can be propagated at once into several blooming clumps for the succeeding year.

And strangest of all and the most fascinating part of growing seedling Irises is the fact that out of hundreds of seedlings no two will be precisely alike; they show a remarkable variation in coloring and marking.

How to be Sure of Seed

THERE are three ways of securing seed. The first and most common is to save the seed that forms as the result of fertilization by bees. The second is to choose the seed parents and plant them in proximity with good varieties in order to govern in this manner the parentage as far as possible. The third way is hand pollination, selecting seed and pollen parents and transferring the pollen from the male parent to the stigma of the mother plant.

My garden is principally an Iris garden and made up for the most part of my own seedlings chosen for their color, freedom of bloom, or some other characteristic that struck my fancy. While the greater number are of my own raising, I also have a fairly representative collection of the newer and better Irises recently introduced together with the tested older varieties.

The most frequent question I am asked by visitors in Iris time is, "How do you cross them?" I have demonstrated and have started several gardeners on the way to raising their own Irises. The Iris is so constructed that it cannot fertilize itself. Unlike a great many plants where the stamens and pistil are clearly apparent and so closely placed that self pollination cannot well be avoided as, for instance, the Tiger Lily, they are well disguised in the Irises. The three strap-shaped prongs which spread from the center of the flower and terminate in two points are the divisions of the pistil or style branches. Underneath each one of these and just above the beard of the fall nestles the stamen.

The stigma where the pollen must be applied is not visible as you look into the flower. It is a little lip or shelf underneath and just back of the two divisions of the style branches. It has a velvety surface and may be readily discovered on close inspection. When the flower opens and the stigma is ripe for fertilization, this lip or little shelf droops. Previous to that it is close up to the under surface of the style branch. As the bee enters the flower, pushing his way between the style branch and the fall to get at the nectar in the tube, he bends back the little lip and the velvety surface sweeps his back and any pollen he has accumulated in another Iris is wiped off on the velvet of the stigma. As the bee backs out of the flower with a fresh load of pollen on his back the lip is pressed back against the style branch and the velvet surface protected against any contact with its own pollen.

Artificial fertilization consists in picking the anther from one flower and placing the pollen upon the little lip under the style branches of another flower. The stamen may be removed with a small pair of tweezers or picked with the fingers and rubbed on

the style in the same way. If the anthers are gathered and placed in a saucer or other small and convenient dish, a camel's hair brush moistened so that the pollen will adhere to it is very useful to apply to the stigmas. Care must be taken after each application to clean the brush of any of the pollen before using it upon another flower.

In order to guard against the interference of bees with a flower that it is desired to pollinate, it is a good plan to clip off the falls at the haft just as they unfold. This removes any foothold for the bees which cannot then come into close contact with the stigma.

Why Not Better Parents?

THE next question is "What will I get?" I wish I knew how to answer that. I wish somebody knew it with some degree of certainty.

When, a number of years ago, my attention and interest in growing Irises from seed was first attracted because some chance seedlings gave better flowers than my older named varieties and I endeavored to figure out their parentage and make crosses with known parents, I began refreshing and endeavoring to coordinate and increase my fragmentary knowledge of structural botany and biology. It led to a great deal of reading and study which has left me very close to where I started except for a glimmering here and there and some experience as to what may be expected of some crosses, or to be more exact, what they will not do.

Naturally, the first idea is to figure along the lines of the Mendelian formula. If you are good at puzzles and like mysteries, try to apply Mendel's law to the strange children of Mme. Chereau. I recommend Mme. Chereau seed to any one raising Irises for the first time so that they will believe me concerning the variation of the seedlings.

Mme. Chereau seems capable of producing almost everything except herself; a sort of an Iris clearing-house. The grower will have some doubts at first if these seeds really came from Mme. Chereau. I had, when I found some handsome red-toned plants from a row marked as Mme. Chereau seedlings. I have never secured a Mme. Chereau type of standard from Mme. Chereau seed, but occasionally some inferior types appear with the long and short stitching in the falls, which make this plant such a distinct variety.

It seems now to be fairly well established that with the exception of the newer varieties in which I. trojana, cypriana, Ricardi, and mesopotamica have been used, the great tribe of garden Irises is descended from two species, I. variegata of which Maori King or Honorabile are types, and I. pallida, of which the handsome Princess Beatrice or Dalmatica is an example. There is some sort of progression among the various types that some of the breeders who have given the subject long study and experiment are beginning to formulate, but it is still uncertain.

Speculation on these subjects is entertaining and interesting but of no great practical value to the average gardener. Mme. Chereau, Dalmatica, Queen of May, Her Majesty, and others common in gardens will offer good material as a start for Iris growing and when the result of these seedlings is observed and the joyful anticipation of stepping out into the garden in late May and early June to see the newcomers is realized, Iris raising will become a widely popular pastime. Raising seedlings from old-timers breeds a desire for better seed parents.

Newcomers of Quality

THE remarkable development of Irises in recent years is due to the employment of several species from Asia Minor which have given great size to the bloom, height, and branching stalks. Caterina, a hybrid of I. cypriana and I. pallida, gave us a new race. Queen Caterina is one of these and a beautiful Iris. Caterina, unfortunately, and others of the finest of the newer Irises with the blood of Ricardi and mesopotamica as well as cypriana remove the only criticism of Irises that I ever heard, which is that "they grow like weeds," for these strains are difficult subjects in many situations. If Caterina will grow and endure long enough to produce bloom, it is a fine seed parent. While they seem hardy enough so far as cold is concerned and all have been grown even as far north as Michigan gardens, they cannot tolerate winter wet and perish in open winters. I have found it a good plan to grow Irises of these strains conveniently together so that I can place sash over them in winter, tilted to protect from snow and shed rain, but leaving the sides open so the plants will not be forced into growth. They are also grown in raised beds. As my garden is very sandy, there is no trouble about drainage which is particularly essential to the good health of all the Bearded Irises.

While they have flourished under these conditions I never feel quite sure of them until they have started into growth each spring because of their proneness to rot. Ambassadeur has given considerable trouble in this respect although usually regarded as more vigorous than some of the others.

The value of many of these newcomers as seed parents is not yet fully developed because of their newness, but we do know that Lent A. Williamson has produced some very fine seedlings; Souv. de Mme. Gaudichau is reported as giving a fine seedling to Iris Kochi; but other reports say it is of little value.

In growing seeds, watch for the pods with only one or two seeds in them. Lent A. Williamson came from a single seed in a pod. So did Dominion. Several others of the very finest Irises developed from pods in which only a few seeds matured. A fat, full pod is likely to furnish only mediocre Irises, but it may also give something extra fine. It is a gamble.

Mr. Bliss believes his Dominion is a mutant and as I recall "Die Mutationstheorie" as explained by Prof. Hugo DeVries, the mutation period recurs every 4,000 years and a Dominion would be likely to occur once in a million plants, so all that we need to secure similar outstanding Irises, is plenty of time and a little room.

While we may not find Dominions, Gaudichaus, or Ambassadeurs in our seedling blocks, we will find a great many very handsome Irises and a great variety of coloring from which to select. There will also be a great variety in height and size of flowers. I have never been convinced that size is a criterion of beauty. I do not believe a Forget-me-not grown to the size of a Russian Sunflower would be correspondingly increased in beauty.

There are many handsome Irises of small flower which appear among seedlings, and I was glad to read recently a word of commendation from Mrs. McKinney and Miss Sturtevant as to the beauty of these little fellows for garden effect. They refer to them as "bantams," an apt characterization. Bliss' Tom Tit is a good example.

Seed Sowing and Crossing

SEED sowing may be done immediately after the seed is ripe. The pods should be picked when the ends split open. Otherwise much of the seed is likely to be lost. I like to sow it while it is still plump and so that I will get some fall germination. I sow the fresh seed in a coldframe in order to give it a longer season of growth in the hope of getting a year's jump in the bloom. Other seed I sow in the open in the fall. It will germinate unevenly, but a good stand is likely to appear in the spring with occasional seedlings appearing all summer or even for a year or two later.

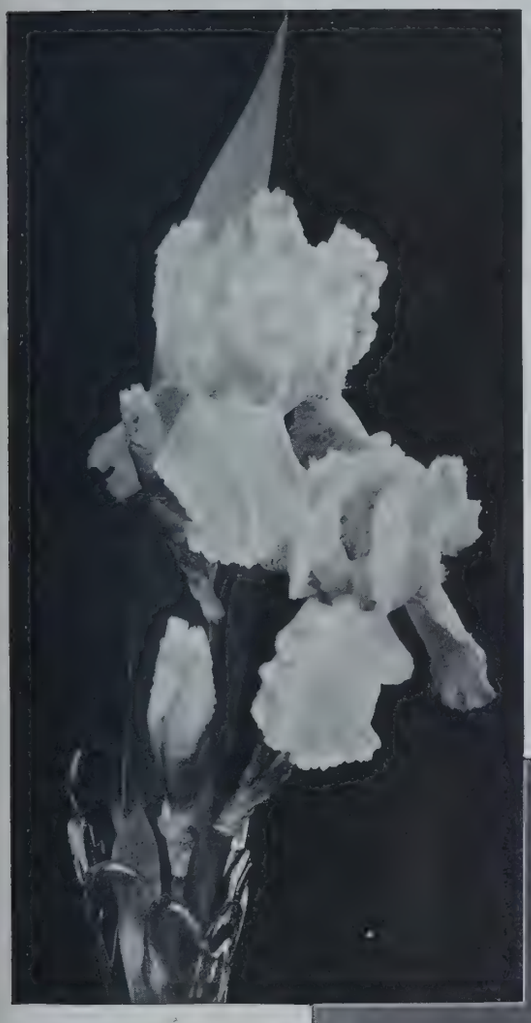
I transplant them into rows a foot apart until they bloom, when those to be saved may be selected and the others thrown away.

Haphazard crossing or trusting to the indiscriminate work of the bees is not likely to result in any advance along definite lines. It is an excellent idea to have some goal in view, although it is not likely to be reached. Few attain their ambitions in Iris breeding, Miss Grace Sturtevant being one of the fortunate ones in succeeding in her purpose of securing tall yellow Irises, the only really distinct break at all unusual or unexpected, it seems to me, that has been shown so far. The large size, height

Newer Irises of Distinction for Your Garden

A NEW JAPANESE BEAUTY NEWLY "ARRIVED"

A true indigo blue with white markings, Laevigata alba purpurea, semi-dwarf. (Introduced by J. A. Kemp)



ZUA

Distinguished for the unique texture of its standards and falls which are crimped and ruffled like heavy frosted crape signalizing the possibility of an entirely new strain of Irises. Color, lavender. (Introduced by Mrs. William Crawford)

SHEKINAH

The first pale yellow of pallida habit (see Mr. Duffy's description on page 294) grows to three feet in height and has a very decorative habit of wide branching. (Introduced by Miss Grace Sturtevant)

LORD OF JUNE

Very large and free flowering pale blue Iris

BEARDED IRIS IN AN OLD-FASHIONED GARDEN AT SONNENBERG, CANANDAIGUA, NEW YORK

Where walls shut out intruding winds and flowers flourish within their friendly shelter—an inviting garden with its sunshine and its guardian Apple tree

and branching stems of the new Asiatic species were forecast easily enough, but they have given no new colors. Previous to Miss Sturtevant's Shekinah and later yellows we had only the short stemmed variegatas in self yellow.

Mme. Chereau seems instinctively to attract a beginner as do some of the plicatas. It seems on the face of it simple enough to cross Mme. Chereau with a yellow or a variegata in which yellow predominates, but the seedlings will produce plants as surprising as a flock of ducks to a brooding hen. The pinks and reds (which are really purples), attract to attempts to get brighter and purer colors. Crossing a red with a red or a pink with a pink suggests intensification, but it doesn't work out. There will be reds and pinks, undoubtedly, some very beautiful ones as I have found in Queen of May and her Majesty seedlings, but no nearer to real reds or pinks. They may be cleaner colored but that is about all.

Of Reasonable Expectations and Great Rewards

NOW as to what may be expected reasonably—pallida Dalmatica, or pallida seedlings, will give a fine line of lavenders ranging from light to dark with some orchid, pink, or red shades, all very handsome, as a rule varying from 2 feet to 4 feet or more in height, depending somewhat on the pollen parent, in this variation, although this is no safe guide. There will be some bicolors, that is the falls deeper colored than the standards, but selfs seem more frequent among pallida seedlings than almost any other class. I. pallida crossed with I. variegata may not give any yellow.

The neglecta class—which includes Monsignor, Perfection, and a wide range of beautiful Irises notable for the velvety texture of the falls, also some handsome selfs and some fine pink and red shades—give a great variety of coloring but restricted to these lavender and purple shades.

The amoenas give me a singular array of purples, lavenders, and bicolors, but never a real amoena to date; the amoenas being distinguished by the white or nearly white standards and deeper colored falls.

Such variegatas as I have succeeded in raising—only a few, as variegatas are rare seeders in my garden—have given me a few inferior specimens not worth keeping.

Perhaps the enumeration of some of the fine varieties and their parentage is the most illuminating way of representing the possibilities. The new and what may be called the giant-flowering type owes the size of its flowers in a majority of cases to Iris Amas or Iris macrantha as it is known botanically. It is one of the parents of Dominion, the seed parent of Lent A. Williamson, and enters into Lord of June, Prospero, and Halo among the newer Iris and into Isoline, Loute, and Tamerlane of the older types. It is a rather early bloomer and rarely seeds in this climate but is a useful pollen parent for those seeking size.

Mrs. H. Darwin, the best cheap white for massing that we have, although the individual flowers are poor, is a good seed and pollen parent. As a pollen parent for Caterina it has given some fine things. While whites as a rule do not reproduce whites (a white Iris being regarded as an albino) Mrs. H. Darwin has given a notable exception in a new French Iris, Balaruc, a greatly improved Mrs. Darwin, taller and larger flowered.

Her Majesty crossed with Mrs. Neubronner, a deep yellow, gave Belcolor, another French novelty with yellow standards and white falls striped with plum color.

While a raiser of Iris seedlings is bound to be possessed with an intense desire to keep up with the procession and will yearn for plants of Irises Ricardi and mesopotamica to try the experiments which are yielding such wonderful plants as Mlle. Schwartz and others, the possibilities of the older and cheaper Irises are by no means exhausted and are almost unlimited in variety. I have found that seedlings selected for some outstanding characteristics are the most satisfactory and interesting subjects for crossing. They are much more free in seed production for me and usually more vigorous in growth. It is possible to develop a great variety of effort from a batch of seedlings. Some plant breeding authorities say that the progeny secured by the crossing of closely related plants are likely to be more vigorous than their parents. On this basis I account for a pallida dalmatica seedling I have, identical with the parent plant in color but much more vigorous and averaging ten inches taller. I have selected

this seedling as a basis for attempts to raise the height of my pallidas.

Another seedling four feet in height which does not come into bloom until all the others are fading, I am using in an effort to see if it will transmit its late blooming qualities. If it does, my Iris season will be prolonged at least ten days. These seedlings, however, will not bloom until another season. The color of this plant is dull and it was difficult to select pollen parents as there were so few blooms left, but three seed-pods with only a few seed in each were secured and germinated well.

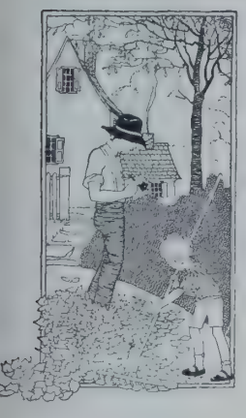
From an old plant I purchased as I. sambucina, dwarf and very fragrant, I have raised a series of self colored rather deep toned lavenders and purples which are very free blooming and offer fine material for masses. They are about 28 inches in height and rather small flowered, but one of the finest subjects for a mass of color in all the Irises I have. These are the easiest type to secure from seeds but one of the most valuable for garden effect to be used either in masses by themselves of in front of taller Irises.

The Trend of Iris Development

WHEN a class of plants is taken in hand and developed by many enthusiasts, resulting in the introduction of a multitude of named varieties, no gardener can begin to keep up with the advance or to form any reliable judgment as to relative values. In such cases it very often happens that named varieties fall into oblivion and gardeners depend upon seed of highly developed strains and grow and select their own plants or buy them in mixtures. Irises are multiplying in alarming numbers. In the United States the reaction to over-development of varieties has been toward the mixed collections or to raising seedlings. We do not, to any great extent, grow or buy named Gaillardias, Delphiniums, or Pyrethrums.

On scanning the flood of new Irises each season and seeing the hopelessness of any enthusiast keeping any perspective on the field, it has occurred to me that possibly the development of the Iris was tending toward seedling raising. This year, for the first time, American seed catalogues are listing Iris seeds, that is, the tall bearded varieties. Any one may raise fine Irises for himself, but the better named varieties are needed to develop the plant and furnish finer seed parents to replace the old ones. Too closely similar kinds should not be named and introduced.

And there need be no hesitation in telling the world the parentage of the best Irises in your garden, for it is altogether unlikely that the same crosses would duplicate them or that you yourself could do it again. Mr. Bliss has made the same cross that produced Dominion many times, but he has never duplicated the plant.



THE GARDEN WORKSHOP

LESLIE HUDSON

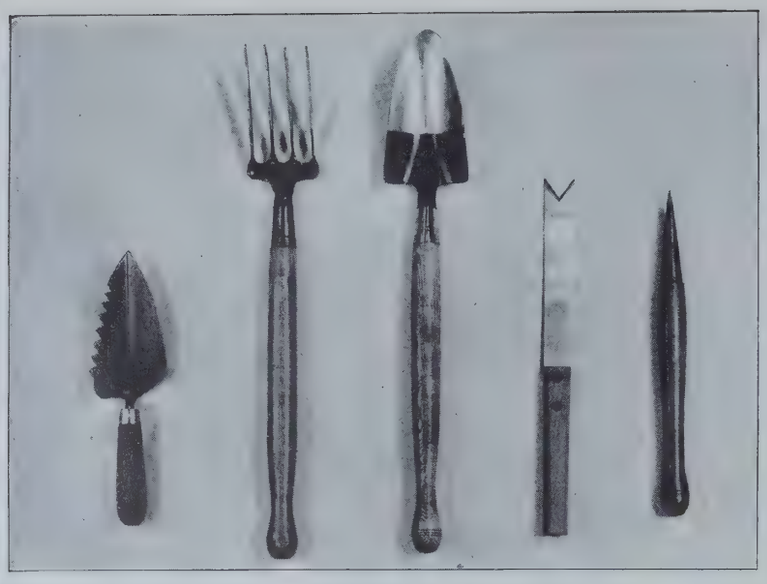
Adapting the Needs of the Garden to the Restrictions of Modern Suburban Life—Saving Coal and Space by Combining Garage, Greenhouse, and Workshop Under One Roof

"EVERY garden," we glibly say, "means a home," which is a convenient way of presenting what is very nearly a truth. For a fact there are plenty of examples of places where people dwell in comfort or even luxury in a gardenesque setting and which yet may fall short of what is really expressed in the word home. Let us not lose sight of the peculiar significance of this Anglo-Saxon word for which no other language offers an adequate equivalent.

The true home means something more than a mere dwelling and its appurtenances. It means a unit well knit together as nearly self-contained as the circumstances of the time and conditions of the region demand. It does not mean the identical thing in all places; but, taken in the sense in which it is employed in the phrase just used, it means something of a place that nestles in comfort and in an atmosphere of content and well-being to which a sentimental attachment is developed because of the everyday incidents of living. In very fact the home cannot be without its garden, for lacking that larger outdoor area that encloses the dwelling it becomes merely the habitation and abode. The home feeds the material, the esthetic, and the spiritual needs of the human soul.

Not so long ago it was literally the homestead, and a charming word to conjure with, but that belonged to the day when the rural population greatly exceeded the urban. Since then, and in the present day there have been great changes—as the urban centers have grown and fed the exigencies of modern life which created them, there has also grown up a vast new intermediate group, the suburban; and yet another for which no name has yet been found, but which includes the large and rapidly growing group of ultra-suburban and yet infra-rural, which is the great class that constitutes the modern gardeners who garden esthetically to live comfortably. These people have new requirements. Expanding out of the fringe of the city growth, where the business folk of the city dwell within reach of all the benefits of the truly rural and yet in intimate contact with the conveniences of the big business centers, is a new class of home-garden makers who with moderate-sized plots use the open space, or should do so at any rate, to actually live in for recreation, and not alone for the purpose of sustenance and support.

THE automobile is an essential factor in the life of this population; and garden plots (in the sense in which we are now considering them) have to conform to the housing needs of this modern agent of transportation. The garage is in reality a very pressing problem to be considered with the garden and is ever taking a greater and greater place in relation to the garden and the house. Although strictly separate, it is an architectural feature and therefore to be considered with the dwelling; although too frequently in actual practice it becomes a very stern piece of garden furniture—not always artistic, usually far away from that. In fact, because it has been introduced as an afterthought, it usually appears rather as an excresence, than as part of any original design. There are not wanting people with an ear close to the trend of gardening activities who claim that the automobile is the great destroyer of gardens. That may be so indeed if you consider only the very small outlying city plot where houses are jammed together and the oncoming

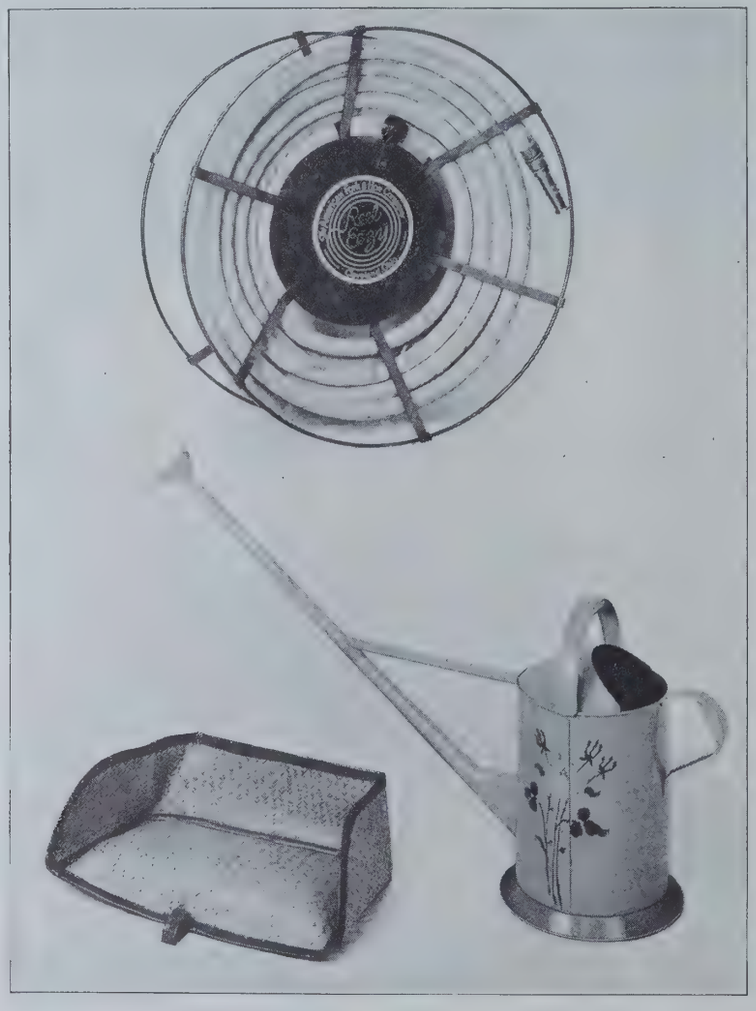


SMALL TOOLS THAT HELP

Dibble for planting seedlings, asparagus cutting knife, extra long-handled trowel and fork for use in flower-bed or border, and a double purpose trowel for digging and breaking up dry surfaces

A HANDY BASKET

Conveniently carried about and well equipped with small garden necessaries as dibble, trowel, scissors, pruners, knife, twine, etc. —all of good quality



CULTIVATOR FOR LITTLE SPACES

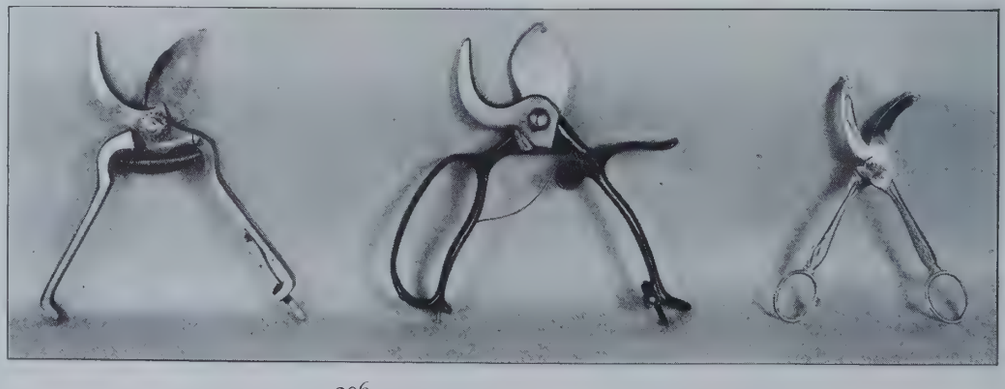
Air is just as necessary to the health of plants as to people, and implements are continually being developed in improved form to meet such needs. Both types of weeder shown come with varying length handles

A TRIO OF EASE MAKERS

Light-weight straw kneeling pad faced at bottom with oilcloth which protects from damp and slides easily along the ground. Long-nozzled watering-pot for window-boxes or porch plants and a new type of reel which may be readily carried about on the wall "between drinks," as it were

DESTROYERS OF "DEAD WOOD"

Sharp, well made pruners are part of every gardener's outfit, and, in pruning, clean cuts are essential to quick healing



of the motor car has abstracted garden space for its accommodation; but what about your ultra-suburban fringe?

In a great many cases, surely, this has been developed by the very agency that has been so destructive in the closer-in belt.

The greenhouse builders report that during the last ten years the call for the small greenhouse on the suburban plot has dwindled almost to the disappearing point because the plot that used to be given to the greenhouse is now taken by the garage. Subdivisions of land for building purposes tend to become larger in this wider outlying belt, and the convention that the garage must supplant the greenhouse will resolve itself into a new conception where space is adequate and the garage and greenhouse together can become an ornamental and fitting accessory to the practical garden.

Both features require heat if they are to be fully efficient so why not tie them together? Design them as a unit with one heating plant to meet the needs of both. It is a very simple matter and adds greatly to the practical utility of the ultra-suburban space. And they are about equal in cost. If modern unit "private" greenhouses, such as have been demonstrated at the big flower shows, be adopted, the gardener who has once felt the ecstasy of cultivating the garden hobby all winter will never let go. It makes for great efficiency, for long before the outdoors can be enjoyed the under-glass garden can be stocked up with seeds to get an early start outdoors as soon as the weather warms up, to say nothing of the opportunities of carrying over and propagating during the winter almost unlimited quantities of desired plants.

Every garden needs a workshop, not necessarily a large one, but a convenient place in which tools can be kept in good condition and in order, ready for use on demand. In building your garage why not include such a workshop with benches upon which work may be profitably done all winter and which provides shelter from sunheat in summer, thus making many a garden task easier? Looking at gardening merely as a recreation and a hobby, winter is full of occasions for making preparations for the outdoors.

Tools that Lighten Labor

IT USED to be that a piece of ground plus a spade, rake, and hoe were considered sufficient to "make the desert bloom like a rose." Not so any longer! There is a desire to make the garden look as though it were really cared for, which requires labor, of course. It was comparatively easy to get that a few years back, but now a man must do a lot for himself and if he take advantage of a multitude of handy garden helps designed to make hard work easier and easy work a snap, he positively enjoys the occupation. The average small lot gardener, however, pays all too little attention to the sundries and accessories offered in the catalogues.

Nor is the necessity of a great variety of garden tools always due to man's desire for greater ease or speed. Soils become over-civilized or overworked or maltreated. In run-down condition they develop ailments, the same as man. And so, perfectly practical soil testing outfits are offered to determine what is the matter, whether the soil needs lime or not, what sort of manure will do it the most good, how to build it up systematically, etc.

Many a gardener in the course of seasons moves tons and tons of soil and tools and seeds and bulbs and plants and moves them the most difficult way—carrying them about piecemeal, by the sweat of his brow, when he might as well use a wheelbarrow. There is all the difference in the world between moving all your garden paraphernalia to the work spot at one operation and between making 57 trips to round up labels, line, seeds, hose, rake, etc. etc. Another thing: even a small tree or shrub can not be moved by a single pair of hands alone if the ball of earth is to be kept intact. It can be moved by one man with the help of a wheelbarrow! And a garden barrow is different from any other, for it has high straight sides and a loose removable end.

Most gardeners consider planting the garden the greatest fun and subsequent work a job. That's their fault! Any garden job can be turned into joy if the right kind of tool is taken to work with. That job of hoeing, for instance—between the rows, a wheelhoe will do, but for closer work, handhoes are needed. The very mention of a hoe, to most gardeners, raises a vision of a cumbersome, square piece of metal 6 to 8 inches wide, attached to a long handle. As a matter of fact, not half of the cutting surface of the average hoe is ever busy. Single and double pronged pointed hoes, heart-shaped hoes and scuffle hoes do the job much better and require a lot less exertion in operation.

The average gardener does not have enough tools. As the result, he tries to cultivate mostly with a hoe, when a shorthandled scratch-weeder or a trowel or even a dandelion digger would do the work much better. Even on a small suburban lot the gardener can use three or four different scratchweeders with 5 or 7 prongs and handles of various lengths from eight to thirty-six inches. Many a plant is broken or bruised in an attempt to free it from rubbish or surrounding weeds with a clumsy rake or hoe—a tool that does not fit the job.

Keeping the Lawn in Condition

THE properly maintained lawn is quite as ornamental a part of the garden as the flowerbeds or shrubbery border. Many a gardener attempts to maintain the lawn with the help of a lawn mower, an edger and a pair of shears. That's just like attempting to operate your garden efficiently with only a spade, rake, and hoe. For one thing, the lawn needs food! Grass is a hungry customer. The covering of the lawns during the winter with manure carries many dangers; it is unsightly, and introduces the element of weeds. Sprinkling artificial fertilizers on top of the grass helps only partly. He who has considerable lawn would do well to look into the various sizes of spiked rollers available for this particular kind of lawn culture. The spikes pierce the sod, thus enabling the plant food to reach the roots quickly.

Another essential lawn maintenance tool is a roller. As sod becomes thicker, it is apt to become "hidebound." Air spaces, due to alternate freezing and thawing during the winter must be excluded or the lawns will suffer. Of the various types of available lawn rollers perhaps the most practical are those that the gardener can fill with water up to any weight, incidentally let the "desired weight" be as heavy as the operator can manipulate. Occasionally, along the shrubbery border, where the mower cannot get conveniently, the grass hook or sickle will prove handy. To fight the pesky weeds with long tap roots a dandelion digger may be kept handy. For the large estate great combinations of mower and roller, either horse drawn or motor driven, invite investigation.

Watering Devices that Simplify

WATERING is often a real problem, and a great variety of apparatus for distributing the water is available, ranging from the simple brass ring to the mechanically more complicated rotating or oscillating apparatus of various kinds that throw showers like rain. Manufacturers are paying increased attention to the nozzles of irrigation apparatus because it is recognized that the stream of water if properly broken up falls uninjuringly on the tenderest spots where a high pressure's direct flow needs constant watching to prevent cutting furrows and gulleys.

A good hose, however, cannot be omitted, and we mean just that—a *good* hose. With the best of care, garden hose has to stand hard wear, being dragged about, kicked, and stumbled over by everybody. Now the difference in lasting quality between good garden hose (average price 22 cents per foot) and cheap garden hose (average 12 cents per foot) is about three years.

In the modern house the porch is becoming more and more the outdoor room of the family and the garden climbs up to it through trellis supporting vines, fern balls, flowers in pots, and plants in tubs! One reason why there are not more porch gardens is because the average home lacks a watering-can that looks suitable. Yet there is a wide choice of truly ornamental ones for the ambitious gardener to pick from!

For Successful Pruning and Shearing

WHERE formal hedges are planted, their effectiveness is largely in relation to their trimness, and steady and regular shearing can be done easily with special tools, although the ordinary shears are an efficient enough tool to one who has had plenty of training and practise in their use. Trimming hedges has had a lot of hard work taken out of it for the occasional man by these special tools. Two popular appliances operate on the principles of a mowing machine, with double-edged double blades doing the work.

For larger trees, as orchard or shade trees, of course, a different type of tool is required and long handled, short blade pruners will cut surprisingly readily large branches high up as the worker stands on the ground. In saws, too, a great variety of special models are available ranging from the California type of bow-shaped saw to the powerful straight blade, some with remarkable handles. Do not attempt to cut

out limbs with coarse-toothed, cross-cut saws. Clean cuts are essential to quick healing and nought but a saw made for clean cutting will answer for the garden; and the inexperienced worker will be chary of the two-edged saw for the "other" side has a strong tendency to cut where it is not wanted to.

Any knowing gardener wastes no sympathy on the man who begins to prune or trim shrubs or Rose bushes with a pocket knife and breaks it! He ought to break it! The average pocket knife is made for show, not for service. Dull blades are responsible for root systems being disturbed by undue pulling around of the plant with the result that the plants are "set back." If that "set back" happens before a drought, small plants frequently die. A good pruning shears can be bought for as little as $2.00. Sensible pruning knives with extra strong blades and reinforced sockets cost but $1.50, and a fine combination budding and pruning knife will give years of satisfactory service for $3.00. And as regards these pruning tools, use them only for the purpose designated!

Being Ready for the Little Pests

WE ARE just learning to appreciate the wisdom of vigilance when it comes to the pests that relentlessly destroy garden pleasures and profits. No garden workshop is complete without a well-stocked shelf of insecticides. There should be kept on hand both contact insecticides and stomach poisons. Of the latter, the various preparations holding paris green and arsenic are the standards. The list of good chemicals that kill when they touch (contact poisons) is so great as to make specific recommendations impossible, but the manufacturers are not backward in offering their wares.

The Indispensable Odds and Ends

MINOR accessories are many and manufacturers oblige us by constantly evolving more. The problem for instance, of an inexpensive yet thoroughly practical seed sower seems to be solved through recent offerings.

Always have on hand a dozen or more ordinary red flower pots of various sizes. One never knows when a plant may have to be shifted, without a place—for a day or two—in which to keep it. A ball or two of soft twine is almost indispensable, for plants will forever seek their level, should man choose to do artificial training.

Those enjoying the invaluable aid of hotbed or coldframe will want a thermometer. Particularly eager gardeners indulging in early spring or late fall activity around the frames will want some regular hotbed mats or covers. Greenhouse glazing points and wooden labels for marking rows,everlasting metal labels for outdoors, aprons, brooms, gloves, and fumigators—great is the choice and greater the joys in store for the gardener who believes in starting in right with the right tools and keeping right at it.

THE HUMBLE RHUBARB OF MANY USES AND ANCIENT LINEAGE

THE common garden Pie-plant used to have a brief popularity in the early spring. Now the progressive housekeeper says to herself: "You can make any sort of jelly or jam one half rhubarb, and the family does not know the difference."

The ample combination of malic and citric acids in this accommodating vegetable assimilates completely the flavor of any fruit. If not provided by the garden it can be had from the shops at negligible cost. Rhubarb requires little preparation and no more sugar when it is properly young and tender than the usual tart fruit. It may be canned with a modicum of labor for use in winter in making any of the conserves now so popular, orange, pineapple, raisin, prune or whatever. Though not so rich in color as many fruits, the fresh, crisp, rosy stalks are very beautiful, and it should never be peeled, both for the sake of the color and the vitamines.

The common vegetable variety (Rheum rhaponticum, from the deserts and subalpine parts of Siberia) will grow anywhere, given a bit of rich soil and plenty of mulching in the winter; against the end of the kitchen porch or at the edge of the orchard; in any possible nook of a city yard, or even in a box of earth out on the fire-escape. It does not mind a little shade and it likes plenty of water—though, of course, you can give it too much. It should not be pulled the first year—no matter how strong the plant, it is always well not to disturb the heart of the concentric growth.

It adds to the interest of Rhubarb to know that it comes of ancient Oriental lineage, the name, however, deriving from the Greek. There are in all some twenty-five species of Rhubarb, natives of Syria and Siberia to China through the Himalayan region. Despite the fact that they are mostly hardy and make striking effects with their bold foliage and tall, interesting inflorescence, they are less often found in gardens than their qualifications seem to merit. The variety whose root is used in medicine was known in China and such alluring quarters as the Himalayas, the Island of Java, India, and Turkey, long before the time of Christ. It came into European use by way of Moscow, and it was cultivated in England in 1657, bringing sixteen shillings a pound when opium was only six shillings. It takes this root six years to mature, and the sun-dried should bring a better price than the kiln-dried.

Just when the Pie-plant was differentiated and began to come into its own we do not know. Some clever English person tried a variant stalk in an initial tart, or maybe a French chef used a kind he knew in a toothsome confection. Time and gardeners and all sorts of good cooks have done the rest. Some people have tried to use the matured leaves in a "dish of greens"; but the results are likely to be disastrous, so don't try it! It is highly poisonous! The inflorescence has its own charm and ripens into lovely brown seed, but Rhubarb is usually grown from the root, a hardy, bulbous, fibrous thing that flourishes after a time by division.

FLORENCE L. SNOW

THE "WOODEN SOLDIERS" OF THE HIGHWAYS ARE TOPPLING DOWN

MRS. J. R. ELLICOTT, Florida Chairman of the Billboard Commission, has received assurance from officials of the Standard Oil Company that they will discontinue using signs and billboards along public highways in Florida. With this decision and a similar one in California, the Standard Oil Company decided to make this policy a national one.

In announcing their decision they have also called attention to a condition along our highways and especially near any historic spot that is fast becoming as objectionable as any billboard ever erected. This is the existence in great numbers of the unsightly refreshment booth, peanut and "hot dog" stands made out of old packing cases or other odds and ends of lumber. The highways near them are littered! The president of the Standard Oil Company justly calls attention to their unsightliness and suggests that a little more expense would permit these owners to erect neat, attractive buildings that would ornament and not disfigure the roadside. This is another phase of the "Save the Scenery" campaign that must be taken up. In planning to banish their billboards, the Standard Oil Company has gone even farther. They have prepared plans for model booths along highways, inexpensive and in harmony with their surroundings. Best of all, these plans are free to any concessionaire upon application.

To the name of the Standard Oil Company and the sixteen other national advertisers whom we have already listed (page 214, May G. M.), we are glad to add that of Procter & Gamble, the manufacturers of Crisco and Ivory Soap. With these eighteen firms enlisted in this anti-billboard crusade, by another summer we can hope to find that along our scenic highways, distance may once more be measured in miles instead of in "pink pills"!

Furnishings That Bring Friendliness To Gardens

THE FOUNTAIN AS A TERMINAL POINT

Such things as fountains, seats, arbors and so on should never be set down arbitrarily but placed always where they have meaning—at the end of a vista or walk, for instance—and where they have a fitting background as here in the garden of Mrs. George W. Wickersham at Cedardurst, L. I.

BIRD-BATH OF SUBSTANTIAL DESIGN

Nothing brings the birds more surely and more regularly into gardens at all seasons of the year than water—even in winter, water seems more welcome than food which somehow they nearly always manage to scratch up for themselves

BIRD-FONT AND LILY POOL IN HAPPY COMBINATION

Simple in design and pleasantly placed in full view of the terrace at the home of Mr. Arthur Dearborn Smith, Wynnewood, Pa.

THE ARBOR PLAYS ITS PART

"The arbor is an architectural feature and as such needs to have a logically related position in the garden scheme" (See page 272). Here in the garden of Mrs. William McRoberts, Pistakee Bay, Ill., it furnishes a frame for the gentle figure of St. Francis and offers a logical pivot for the circling path

AMONG OUR GARDEN NEIGHBORS

EVERY GARDEN MEANS A HOME

LIVING, AND THE GARDEN

SEVERAL articles in this number of THE GARDEN MAGAZINE ask consideration for those very essential garden materials that are not the living denizens of the enclosure. "What is a garden?" may well be asked. Surely not merely a place where plants grow, for a nursery or park will answer that definition. Instinctively everyone feels that "garden" expresses something of close human contact. Indeed, the garden must be a *personal* affair and like our personal rooms in the dwelling house will be furnished for comfort. There are lots of things that belong in a garden which are not products of the horticulturist's skill. And indeed there is a wide opening field of pleasant and profitable occupation for a special type of artist or decorator who shall help make the garden a picture or a truly well furnished and practical outdoor room for real recreation (re-creation), mental and physical. There is no wish to abate by one jot the plant interest in the garden, but rather to enhance it by making the place one where the flourishing plant can be intimately enjoyed and lived with.

A great painter will pay meticulous attention to the frame in which his work is displayed. Why not the gardener too? The products of his art are equally enhanced by proper setting and as much attention should be devoted to what we lightly call "accessories" as to the living components. Accessory is an unfortunate term suggesting somewhat a secondary importance—or even less—whereas these things are of equal value in making a *livable* garden. Flowers? Yes, since "wherever flowers cannot be reared, there man cannot live"; but a great variety of garden furnishing material invites consideration—pottery and statuary, gazing-globes and fountains, properly used, all help to create that home atmosphere which distinguishes the well-conducted garden from the one run indifferently.

In no other fashion can individuality be expressed more strikingly than through a harmoniously arranged and furnished garden. Furnishing a garden may be likened to furnishing a room. You wouldn't think of moving in your rugs, your furniture, the pictures, etc., until the carpenters had finished all their work! Similarly, when nature has completed her constructive work in the garden man may most appropriately place the objects that transform the garden into a true outdoor living room. Let us give more attention to these things!

A CREATOR AND PAINTER OF IRISES

MR. J. MARION SHULL, whose delightful Iris, Morning Splendor, appears on the cover, is both artist and hybridist. Inheriting a love for flowers and a collector's spirit, the beginnings of an Iris collection soon became more than that and a chance seed-pod settled the matter! Sharing the botanical and genetic interests of his brother Prof. George Shull, now of Princeton, Mr. Shull approached the work of raising hybrids with a singleness of purpose that has had much to do with the success of his seedlings. Time after time he has set for himself definite problems to solve, goals to attain, and has brought some already to a successful issue, while others remain in progress.

Although there have been some Irises that have been worth saving that were not in the direct line of the original programs, the selection from the masses of seedlings have been few and all show his high standard. Personally, I prefer the later seedlings, of which the beautiful Morning Splendor and Julia Marlowe are noble examples. These are splendid Irises, of size, clear and fine color, height and vigor and should certainly find permanent places in the Iris world, particularly so as they incline to the red side of the Iris range of color.—B. Y. MORRISON.

A PIONEER FLORIST AND PROTAGONIST OF GARDENS

JOHN CHARLES VAUGHAN, who died in Chicago on April 12th, was a personality whose passing merits a note. Though the founder of the seed business in New York and Chicago bearing his name it was really in the less obvious spheres of his activity that his influence was the most greatly felt. He was a member of practically every trade and allied association and for many years an active campaigner. J. C. Vaughan died in his seventy-fourth year, active until the very last day of his existence.

As a pioneer in horticultural affairs he was a figure of real interest. He founded the now large industry of selling cut flowers on commission, starting the practice in Chicago. The whole day's supply for that time was frequently carried in a single basket! Now look at the immense product of the cut flower industry in that western metropolis where glasshouses for Roses, etc. are measured by acres. All this was a development of a business of which "J. C.", as he was always referred to by his intimates, foresaw the possibilities and laid the very beginnings. When he relinquished that line of activity some thirty years ago his turnover had grown from less than $2,000 to $85,000 a year.

He had an exceptionally keen eye for novelties in garden plants and rendered great service to garden lovers as the medium through which many a new Gladiolus, Sweet-pea, and Canna reached the public, doing much indeed to popularize these favorites; and the florist trade will have keen recollections of his activities in establishing the Bermuda Lily industry for Easter flowers.

Mr. Vaughan represented horticultural interests in the United States Chamber of Commerce and was a consistent protagonist for the widening of their sphere, constantly opposing the tactics of the Federal Horticultural Board. In an address before the Chicago Florists Club as recently as February he presented the following forceful statement which nullifies the assertion sometimes made that "the trade is all for quarantine 37:"

The World's Fair of 1893 saw in our exhibitions and parks, giant Bay trees, large Azaleas, and Boxwoods—all since shut out by the United States Quarantine No. 37—and the misguided and commercially ignorant men who control this government bureau have given a setback of more than thirty years to the display publicity florists should have in our large hotels, public buildings, and parks. I am safe in saying that if we had to-day the former magnificent Bay

trees and Boxwoods for the lobbies of the Drake Hotel, not less than $10,000 worth annually of high class decorative plants, such as we used to import from Belgium, could be readily sold in that one hotel alone. There are no proofs advanced on the part of the Federal Horticultural Board that Boxwoods or Bay trees have brought in any dangerous pests. These remarkable examples of the greatest achievements in horticultural production are no longer available to the landscaper and plantsman decorator, and no substitute has been or can be developed. Few florists realize the amount of publicity and profit they are steadily losing. Only through gradual general recognition by the florists' trade and the general public of the useless expense and business losses entailed through pernicious bureaucratic stupidity at Washington, D. C., can this evil be corrected and the path of progress cleared.

EVIDENTLY achievement has its drawbacks for a pathetic plea has just come from Louise Beebe Wilder begging that pilgrims be staved off and her privacy preserved. Or, as she more modestly and courteously states it: "The increase of general interest in rock gardening is such that I find it impossible to receive visitors to my garden except by appointment."

The story of Mrs. Wilder's rockery at Little Balderbrae is very delightfully told and pictured in her recently published "Adventures in My Garden and Rock Garden," which might be suggested as a satisfying substitute, although we fear it does in reality but furnish further stimulus and is perhaps the true culprit in the matter of inciting pilgrimages. Some of the fascinating little plants that flourish at Balderbrae may also be found on pages 24 and 25 of the September, 1923, GARDEN MAGAZINE.

ANNOUNCEMENT is made by the American Dahlia Society that this year's exhibition on September 24, 25, 26, will be held in the 71st Regiment Armory, Park Avenue and 34th Street, New York City. The phenomenal growth in the number of exhibits and the desirability of getting more adequate space for the exhibition has encouraged the directors of the organization to undertake the greater effort involved in the selection of this larger place. There will be splendid opportunity here for extensive trade exhibits on a very large scale, and the September Flower Show in New York under the auspices of the American Dahlia Society may be looked forward to as a real event in gardening.

THE OPEN COLUMN

Readers' Interchange of Experience and Comment

Is This Truly a Late August Iris?

To the Editors of THE GARDEN MAGAZINE:

I ENCLOSE photograph—not a very good one—of the Vesper Iris (I. dichotoma). This little Iris, which I received from the government and which had probably been coddled all winter, only finished blooming on September first. If this is its true blooming date, it is unique among Irises. But it is also unique in another respect—for this grateful little Iris was in bloom for more than two weeks. Iris lovers must concede that the genus as a whole is disappointing in the ephemeral character of its blooms. Iris dichotoma, however, practises an economy. Like the mirabilis it opens only in the afternoon. The flowers are only a little larger than cristata. The color is a lovely lavender-blue. Botanically, the species is in a group by itself. It doesn't list as a pogoniris or apogon or crested. And, so far as I know, it can only be had from the Government Bureau of Plant Importation. It is a native of China.

Among the experimental plants on my rockery nothing has given me such a sense of discovery as Polemonium carneum. It is dwarf like P. reptans. The individual flowers are half again as large, opening out white and blushing to deep flesh pink. The petals are so thin as to be almost transparent and have a skin-like quality that suggests "that school-girl complexion." It proved hardy last winter. Seeds from Correvon, Geneva, Switzerland.

Jasione perennis, like a small blue Scabiosa, started bloom in June and was still going strong on September first. It is a small tuft of foliage with long, slender flower stems sustaining little blue tufts. Plants in semi-shade came to nothing. There is usually so little to show on a rockery after the first of July that I must mention this.

As for Anemones from seed—I should have said "which are so seldom grown from seed"—I wonder if others find them as trying to their patience as I have.—JULIAN HINCKLEY, *Cedarhurst, L. I.*

VESPER IRIS (I. dichotoma)

A little late-blooming native of China with lovely lavender-blue flowers; photographed by Mr. Hinckley in whose Long Island garden it grew last summer (see accompanying text)

Where Can This Hardy Viola Be Had?

To the Editors of THE GARDEN MAGAZINE:

SOME twenty years since I secured from the Old Colony Nurseries of Plymouth, Mass., some hardy Violets, the variety known as Viola Schonbrunn, highly and deservedly recommended by the charming and learned owner of the nurseries, Mr. T. R. Watson.

I have never seen the equal of this variety for hardiness, prolific growth, and fragrance. Can any of your readers, professional or amateur, inform me where this variety can now be procured?—JOHN H. ROSS, *Jamaica Plain, Mass.*

Avoiding Blight on Aconitum

To the Editors of THE GARDEN MAGAZINE:

IT GIVES me pleasure to write you that following your suggestion of last summer, I was able to avoid the blight or "blacks" on Aconitum. During a long dry spell in 1922, when we were absent from home for several weeks, all my Aconitum plants, both of the late napellus strain as well as some treasured bicolor stock, blackened both in leaves and stem and died back to the roots. You suggested that treatment with lime worked into the soil, together with removal if possible to a moist situation, might be the solution. This I did, but left a few roots in the former location and subject to drought similar to that of 1922. I also kept the relocated plants well wetted with the result that I had no trouble at all with the Aconitum under the new conditions in the new location; whereas the plants which had been left undisturbed repeated the behavior of the year previous, blackened, and died back to the roots.—O. W. STEWART, *Boston, Mass.*

An S. O. S. from a Nebraska Gardener

To the Editors of THE GARDEN MAGAZINE:

BEING the greenest of amateurs my only recommendation is that I have a personal love for every growing plant and regret that my garden is too small to hold them all. I have successfully raised hybrid Delphinium and Columbine, also Tritoma, Pentstemon, Japanese Anemone, double Hollyhock, biennial and perennial Campanula, Dianthus, Lychnis, Lupin, Foxglove, and other perennials from seed, all now beautifying my garden. But occasionally something happens to some of them that surprises and dismays me, so I am venturing to write of my troubles, hoping somebody will be kind enough to give me some advice.

(1) A long row of single and double Spice Pinks died last winter after three years of blooming. They matted deeply after blooming heavily in 1922. I watered them occasionally during the summer and did not cover them during the winter, but when spring came they died a lingering death, the last life shown in the ends of the long branches. What was the cause of this?

(2) I have a hundred healthy seedlings of Japanese Anemone in a coldframe. How far apart should I set them and should they go in low damp soil, or ordinary garden soil?

(3) Why did my Miss Lingard Phlox die in August after blooming heavily? Could it have been too frequent watering? Is that Phlox more subject to blight than others? Why were so many other Phlox plants speckle-leaved?

(4) How near together may full grown Tritoma be allowed to grow? Mine live all winter in the garden protected with straw.

(5) What can I set around my bird-bath that will not mind constant splashing? Japanese Iris? Japanese Anemone? Forget-me-not? Monkshood? What others? The soil becomes green in spots around the bath, which stands four feet up from the ground.

(6) I planted seeds of Canterbury-bells in July 1922, kept them over winter in a coldframe, and reset the thrifty plants in April 1923. They did not appear at all disturbed by being moved, but not one of them bloomed and late in the summer many of them blighted and died; possibly from too much sprinkling? What was the reason for this lack of bloom?

(7) My three-year-old golden Calla bulbs, though large and healthy looking, almost refuse to grow, although white Callas on the same bench grow profusely. Last year each golden Calla sent up one enormous, tall leaf which remained alone until summer when it died and the plants became dormant. This year one is sending up two rather small leaves, but the other seems having great difficulty in producing even one leaf. How should I treat them?

I would be glad if your interesting magazine would sometime discuss the raising of various kinds of Lilies in the garden.—Gertrude F. Richards, *Lincoln, Nebraska.*

—On pages 115-118 of April 1923 G. M. will be found a comprehensive article on "Lilies From June Till September" by Helen M. Fox.—Ed.

WALL FOUNTAIN IN A CALIFORNIA GARDEN

Glimpse of a thirty foot flowerbed bordered with Betony (Stachys lanata) backed by pink Phlox in Mrs. Hood's garden at Sonora (see "Benediction in the Little Garden")

"Benediction in the Little Garden"

To the Editors of The Garden Magazine:

THERE is a quaint old town in California where the spirit of the "days of old, the days of gold, the days of '49" still lingers—it is Sonora, in Tuolumne Co., and the land of Bret Harte and Mark Twain. In this old town, "not quite in the busy world, nor yet beyond it," blooms the garden that I love.

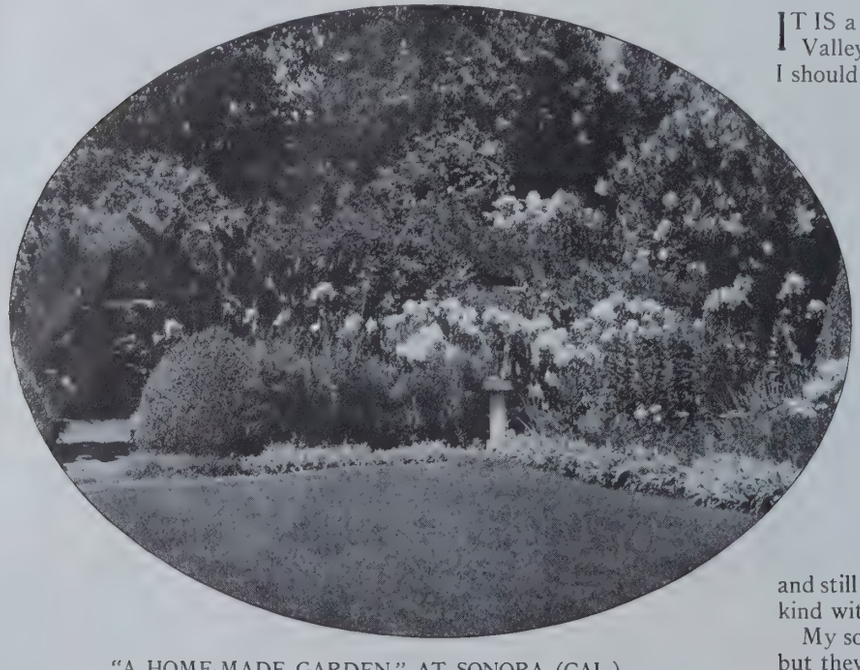
Sonora nestles among pineclad hills and there is very little level ground; therefore my garden is in three levels. The first level or terrace, is occupied by the house on the south, garage on the north, between is the lower garden terrace as shown in circular picture above. At the foot of the wall is a flowerbed 3 x 30 ft. filled with hardy Iberis and Daffodils, followed by Darwins and Iris and, at the end of the season, pink Phlox. It is bordered with Stachys lanata, as are all the beds in the garden. A white Memorial Rose drapes itself over the wall and wall-fountain. Above the wall on the second terrace is a trellis supporting a 75-year-old Grapevine which reaches across the lot and down over the pergola. Under the Grapevine is a narrow 2½ ft. bed filled with bulbs and Iris. Roses twine about the posts supporting the Grapevine trellis. In front is a brick-paved path with a place for seats, "where the family and friends gather under the vine-clad roof with the leaf-tiled floor" to enjoy the garden.

The second terrace is a rectangle also, open lawn, bordered with flowers. Then comes the open space that you see pictured in oval below. The back of this terrace is a stone wall 8 ft. high with a 5 ft. bed the whole length of the garden filled with bulbs, Cannas, Phlox, Boxtrees, two Oleanders, Coreopsis, Iris, giving a succession of bloom from spring until winter. The large Box trees are thirty-eight years old while the edgings and smaller ones I have raised from cuttings. The fourth side of the rectangle is a Rose-covered fence 10 ft. high with giant Musaefolia Cannas and flowering Cannas in the background and hardy perennials, especially Phlox and Michaelmas Daisies.

The third terrace is about 10 ft. wide on top of the 8 ft. wall. Street Elms form the background with Rose-covered fence. Iris and Roses border a narrow path which terminates in a square about 10 x 10 ft. with seats and bird-bath, brick paved and ornamented with rock bowls hollowed out by the Indians in grinding corn and acorns. Here wild birds find sanctuary. From here one looks down on the two lower terraces and into the enclosed garden.

The whole is just a home-made garden or a series of little gardens each complete in itself, for "there is a benediction in the little garden's grace."

I should be glad if these glimpses give pleasure to some reader as the glimpse of other gardens gives pleasure to me.—Mrs. Juliette M. Hood, *Sonora, Tuolumne Co., Cal.*



"A HOME-MADE GARDEN" AT SONORA (CAL.)

A corner of the second terrace showing Phlox, Cannas, Box, Oleander, etc., and described in Mrs. Hood's letter (see above) which modestly states that "the whole is just a home-made garden or series of little gardens each complete in itself"

Who Has Pink Lily-of-the-Valley?

IT IS a long time now since I have seen flowers of the pink Lily-of-the-Valley, that was sometimes offered as Convallaria majalis rubra, and I should greatly appreciate any reader who has this plant getting in correspondence with me.—Editor of The Garden Magazine.

The Indefatigable Rose Chafer

To The Editors of The Garden Magazine:

IS THERE any one among your readers who has gotten the better of the rose chafer? If so, will they help me? I have tried insect powder, arsenate of lead, Melrosine, sulphate of iron, tobacco tea, and I seem but to have provided a banquet to which they have brought all their friends and relatives.

On two sides of my garden I have cedar trellises about one hundred feet long; these support Silver Moon, Dr. Van Fleet, Lady Gay, and Dorothy Perkins Roses. Last season I am sure I did not get fifty perfect flowers. When one has visioned pale blue bowls filled with lovely Van Fleet buds, could any disappointment be greater? Two patient members of the family picked rose bugs by the hour and still they came and came and came! Mr. McFarland has been most kind with suggestions, but I believe even he thinks I am in a bad fix.

My soil is a heavy clay loam which they are not supposed to prefer—but they do seem to love it. I thought of cutting down the vines this year to diminish the food supply, but this seems futile since they do not confine their activities to the Roses but last year ruined Peony blooms, garden Heliotrope, and Coreopsis as well!

TAKING COMFORT IN THE OUTDOOR LIVING-ROOM

Rather like a fairy tale this garden came into being for in the summer of 1921 all this sheltering verdure was literally non-existent and the site "just an impossible looking piece of waste land facing the sea"; so writes Madame de Barbac (see accompanying text) of her summer home, Villa Mimosa, at Monmouth Beach, New Jersey

Does any one know a sure remedy? I have always been able to conquer other pests and even to get the better of poor seasons, but these ugly things rear up and defy me each June and anything that spoils June should be exterminated!—Edna Halstead Gould, *Locust Vale Farm, Towson, Maryland.*

—The rose bug is almost an uncontrollable pest. One way of reducing its attacks is to grow red rather than light-colored flowers. One of the difficulties in combating the pest is that there may be an influx of beetles from surrounding gardens or fields over which you cannot possibly have any control. They find, of course, the lighter soils but it is not certain that you won't get them in any other place. Possibly there is a plantation of Grape vines near you which is a source of supply of the beetles.

Of all the sprays Melrosine seems to be most effective provided the spray actually hits the beetle. It is impossible to attack it by poison baits. It must be killed by a contact poison. Apply the spray during the period of attack twice a day.—Ed.

When Poppies Get in Hot Water

To the Editors of The Garden Magazine:

HANS KOEHLER and other Poppy enthusiasts just do this. Take your vase filled with hot water out with you to gather your Poppies. You may gather and keep fresh all of them, from Oriental to Iceland.

Any flower will keep better if the water is lukewarm and if the stems, when clipped, are held under water.—G. H. B., *South Bend, Indiana.*

My Little Lily Pool—Thanks to "J. B. Spencer"!

To the Editors of The Garden Magazine:

ON PAGE 243 of your June, 1922, issue appears an article by J. B. Spencer instructing one how to make a lily pond in a little garden. I followed the instructions minutely and with what success the accompanying photographs will show. I made it in June, 1922, and in August, 1922, I had Lilies flowering. The pictures were taken in September, 1923.

I built my cottage and laid out the garden in the summer of 1921 on what was just an impossible looking piece of waste land facing the sea, and you will see by the pictures what I achieved by following and studying your magazine, which is a never-failing source of instruction and information to an amateur like myself. From April until October I have constant blooms of every description beginning with flowering shrubs and bulbs to Dahlias, and am the envy of my neighbors who keep gardeners.

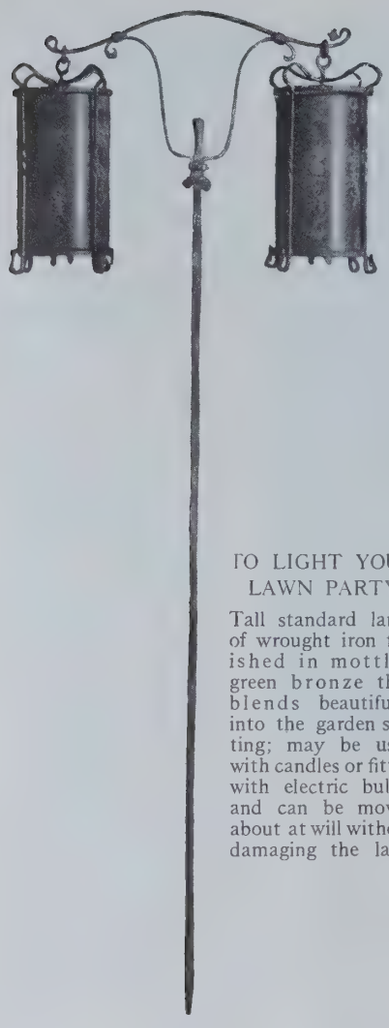
The Water-lilies are left in the pond all winter. I drain the water off, pack straw around the Lily boxes, then cover over the whole of the pond with planks coated with shingle paper. Last spring (1923), after a very hard winter, when I took the covering off in May, everything was verdant and thriving, even the rockery plants which I had also covered. Your Open Column is an untold boon to all amateurs in gardening.—C. De Barbac, *Villa Mimosa, Monmouth Beach, New Jersey.*

THREE MONTHS FROM START TO FINISH

Inspired by an article in the June G. M., Madame de Barbac set to work on a Lily pool for her New Jersey garden (see above text) with the happy result here portrayed

For Your Outdoor Living Room

(Photographs by Mattie Edwards Hewitt, courtesy of The Arden Studios)



TO LIGHT YOUR LAWN PARTY

Tall standard lamp of wrought iron finished in mottled green bronze that blends beautifully into the garden setting; may be used with candles or fitted with electric bulbs, and can be moved about at will without damaging the lawn

BENCH AND LITTLE STOOLS OF ANTIQUE PATTERN

Of soft-toned wood with a delightful motif of birds and modified honeysuckle pattern in wrought iron; comfortable, durable, and unhackneyed

WHEN THE GARDENER TAKES HIS EASE

Fashioned on the English army model with swinging back to tilt at almost any angle; leather strap arms; natural wood frame, light and readily moved about; made up in any desired canvas to match awnings

FOR TEA ON THE TERRACE

Portable folding chair of wood and wrought iron finished in golden bronze with sturdy table and stool to harmonize. A good slope of seat and back make this chair particularly easy for one of its type

THE MONTH'S REMINDER—JUNE

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How to Use This Guide. When referring to the time for outdoor work of any sort latitude 40 at sea level (i. e. New York City) in a *normal season* is taken as standard; but at best dates can only be approximate. Roughly, the season advances or recedes fifteen miles a day. Thus Albany, which is one hundred and fifty miles from New York, would be about ten days later, and Philadelphia, which is ninety miles southwest, about a week earlier. Also allow *four* days for each degree of *latitude*, for each five degrees of *longitude*, and for each four hundred feet of *altitude*.

Details of *how to do* each item may be found in the current or back issues of The Garden Magazine—it is manifestly impossible to make each number of the magazine a complete manual of practice. References to back numbers may be looked up in the index to each completed volume (sent gratis upon request); and to further help the reader we have a "Service Department" which will be glad to cite references to any special topic, if asked for by mail, and also to send personal replies to specific questions; a stamped, addressed envelope being enclosed.

EVER since March we have been enjoying flowers of one sort or another, scatteringly at first—a few Crocuses, a handful of Snowdrops perhaps—then the more generous troops of Daffodils and Tulips; now June brings luxuriant largess not only of flowering things but of welcome "first fruits" in the vegetable garden—Asparagus, Peas, Rhubarb—substantially rewarding diligence and thoughtful planning. Plantings are to be continued, of course, to keep up a succession of fresh, tender vegetables through the summer months and there is a distinct delight in "stepping lively" these pleasant days and in keeping well abreast of the garden game.

For All-summer Vegetables

Succession plantings (See Mar., 1922, G. M. on "When, How and Where to Plant for Quality Vegetables") to be made of all vegetables required for table supply throughout the summer; and provide for fall crops (see article in July, 1923, G. M. on "Follow Up Crops") by replanting extra-early varieties now on the decline—such as Beets, Radishes, Lettuce, Spinach, etc. Have mid-summer Lettuce (see Garden Magazine for April, 1922, pages 116–118) or Endive follow early Beets; Bush Beans after Radishes; Beets or Celery to follow Lettuce; Lettuce or Beans to follow Onions. Extra-early varieties of the follow-up crops will oftentimes leave the ground available for still another crop in August.

Plant early varieties of Sweet Corn every week or ten days up to July 4th which should be the final planting in latitude 40°; midseason Lettuces, such as All-season, Iceberg, and Butterhead to be sown all through this month. Fine summer Radishes are Long White Vienna, Chartiers, and White Delicious.

Winter Celery to be sown at once. Any sown last month may be pricked off into a spent hotbed as soon as large enough to handle.

Crops grown for their leaves (Chard, Spinach, Endive, etc.) will be benefited by nitrogenous manures. Give top dressing of nitrate of soda either immediately following a rain or on ground thoroughly saturated the night previous. Liquid manure is best, however, to make; half fill a bag with manure and suspend in a barrel of water.

Cease cutting Asparagus as soon as other vegetables are plentiful.

Transplant to permanent quarters: late Cauliflower, Cabbage, Kale, Broccoli, and Brussels-sprouts.

Bloom for All the Bare Spaces

Sow now seed from such early flowering plants as Columbines, Larkspurs, etc., to produce good plants before the fall.

Still time to get a supply of seeds of annuals and enjoy a perfect sea of bloom ere the fall frosts arrive. To be sown now: Snapdragons, Asters, annual Gaillardia, Clarkia, Larkspur, Lupin, Poppy, Alyssum, Arctotis, Balsam, Calendula, Calliopsis, Candytuft, Cornflower, Centaurea, Cleome, Globe-amaranth, annual Gypsophila, annual Sunflower, Marigold, Mignonette, Stock, Verbena, Zinnia, etc.

Late-flowering Tulips may be lifted as they pass out of bloom and heeled in elsewhere to ripen, the vacancies being filled with annuals. Those known as "croppers" are best for this purpose.

In the Flower Garden

Sweet-pea flowers to be picked determinedly; if seed-pods form, plants will stop producing. Keep well watered, for if the vines begin to turn yellow that is the end. Bedding-out to be finished promptly, setting aside a few surplus plants for replacements.

Iris needs lots of water after blooming. Use bonemeal as fertilizer; top dressing with manure is bad for Iris. The best time to divide, transplant, or make new plantings of Iris is immediately after the blooming period.

Stake plants as they need it and before they blow over, using an inconspicuous support.

Cut to the ground Achillea as soon as through flowering to provide for a second crop later in the season.

Coreopsis kept cut close will make a display all through the season. Keep picked off all dead leaves and flowers as they fade.

What the Roses Want

Feed freely with liquid manure; if large exhibition blooms are wanted rub off all but the terminal bud. One sure way to get control of rose bugs is by hand picking into a can of kerosene. Spraying with arsenate of lead, 5 pounds to 50 gallons of water, repeatedly, is an old remedy not very effectual. Melrosine is a new preparation recommended for its effectiveness.

Gladiolus for late fall cutting to be planted at 2-week intervals.

Dahlias to be planted during the month; put out stakes before setting out tubers or plants. When growth has started, reduce shoots to one, allowing side branches to develop one foot above the ground.

Among the Perennials

Many herbaceous and alpine plants may be propagated after flowering by cuttings or offsets. The Creeping Phlox, Cerastium, Sedum, Aubretia, Arenaria, and Iberis, are among those that may be increased at this time. Use a frame containing sandy soil and which can be shaded from hot sun.

Sowing seeds at this time will give a good stock of flowering plants for next year. Such subjects as Delphiniums, Lupins, Foxgloves, Canterbury-bells, Sweet Williams, Aquilegias, Oenotheras, Heucheras, and other perennials, will make plants of sufficient size to plant into permanent quarters in the fall if sown now. A seedbed in the open ground will meet the requirements of these plants at this time, but as the frames are emptied of other stock they may be utilized. Shade is essential until germination takes place.

Shrubbery, Lawn, etc.

Keep clipped all kinds of trained plants and hedges.

Recently transplanted large trees, shrubbery, and other ornamentals to be well watered throughout the summer.

Evergreens will be benefited by overhead spraying twice a day.

Young shoots of climbing Roses and other climbers to be kept tied up.

Seed-pods to be removed from Rhododendrons, Kalmias, Andromedas, etc., to reserve vigor for next year's bloom.

Prune early-flowering shrubs as they pass out of bloom, removing the oldest wood that it may be replaced with young, vigorous shoots for next season's flowers.

Propagate now by cuttings of half-ripened wood shrubs and trees, to be rooted under glass; also layer as soon as shoots are long enough to permit it.

Pinch out side shoots of Evergreens to induce bushiness.

Grass edges to be neatly clipped; walks and drives to be raked and rolled frequently.

For Fine Fruits

Thin the "set" of Apples, Pears, Peaches. Much finer fruit will result, with superior flavor, and the aggregate weight will at least be equal. True also of Grapes.

Crops of Gooseberries, Currants, Strawberries depend to a large extent upon the amount of moisture maintained about the roots. Use grass clippings and other mulching material.

Summer pruning (pinching out the tip of the young growth) will keep the young fruit trees in better shape and induce fruitfulness.

Retard the Currant crop and gather fresh fruit in August by covering bushes with muslin or burlap before fruit ripens. Watch Blackberries and Dewberries for orange rust, burning affected bushes as soon as discovered.

To feed fruit trees scatter stable manure over the ground as far as the spread of the branches; or use from 4 to 5 pounds of phosphoric acid for each large tree, and, after raking it in, mulch the surface with the weeds and other refuse taken from the garden. Trees with rank, vigorous growth and little fruit do not need manure; those with small, undersized fruit and little or no annual growth will be benefited.

Protecting the Crops

Get after the elm-leaf beetle early, as spraying is useless after the larvæ begin to come down. Use arsenate of lead applied with a good pressure pump.

Plant lice, or aphis, on Cantaloupes, Cabbage, etc., may be checked by spraying with Black Leaf 40, or any approved nicotine extract or by some of the special aphis preparations. Do the spraying during the cool of the evenings and take care to wet the under side of the leaf.

Squash needs protection from the striped cucumber beetle and flea beetle while they are still small; use arsenate of lead powder, one ounce to three pounds of dry land plaster, or air-slaked lime, or very finely sifted ashes. To a certain extent the squash bug may also be thus attacked, but at times that pest appears to be impervious to poison, and hand picking has to be resorted to. If the leaves show signs of wilting, examine the stem near the root for the borer, and if it has not gone too far it may be cut out and the vine will recover. In any case, it is a good plan to cover several of the vine joints with soil to encourage the formation of independent roots.

For rust and blight of Celery and dark brown spots on the Beans, spray with bordeaux, or better still with bordeaux-arsenate, and get some of the leaf-eating pests at the operation.

Irregular holes in the Cabbage leaves? Either arsenate of lead or paris green, one ounce to ten gallons of water; and use it on Cauliflower, Kale, Brussels-sprouts, Kohlrabi. Slug-shot is a handy material for general use in the vegetable garden against worms and caterpillars—it is not poisonous but is effective.

If cutworms nip off the newly set plants, feed a supper of bran moistened with sweetened water until it will crumble, and add paris green one ounce to three pounds of bran. Put it around the plants at night.

Potatoes require the bordeaux-arsenate spray against blight and potato bugs to "kill two birds with one stone"; and look out for the Egg-plants, too!

An all-round three-in-one spray for chewing bugs, sucking pests and fungus is made thus: (a) prepare standard bordeaux (for fungus); (b) use a as water in preparing arsenate of lead solutions (for chewing worms); (c) considering the mixture of a and b as water add a nicotine or similar preparation (for lice and sucking pests).

GARDEN ACTIVITIES UNDER GLASS WITH AN EYE FOR NEXT WINTER

This is preparatory season for next winter's supply of cut flowers, pot plants, etc. A general clean-up is essential. Discard old plants, renew soil, and generally overhaul. As many subjects as possible that are to be carried over should be accommodated in frames. Adiantums (Croweanum, cuneatum, and gracillimum); Pteris; Cyrtomiums; Polypodiums; Davallias, and Nephrolepis; Cyclamen; Primulas, and other flowering plants are amenable to frame culture at this time.

Antirrhinum seedlings intended for an early winter crop should now be large enough to prick off. Give a fairly rich soil and plenty of room.

Still time to root a batch of the exhibition Chrysanthemums. They will make fine dwarf plants in six-inch pots. Early-rooted plants to be potted on as fast as they fill the pots with roots, until they are in their flowering pots. Plants for bench culture to be planted into flowering quarters now.

Sow seeds of Primula malacoides and its varieties, also Cineraria; give the latter every protection from heat and grow as cool as conditions will allow.

Celosia sown now will provide blooming plants by the end of August. Plants on hand to be repotted to larger pots.

Gloxinias to be well shaded and grown cool. Fumigate for thrips.

Begonias of the Lorraine type require shade and careful watering. Keep near the glass to secure stickiness.

Gardenias require frequent and thorough syringings to keep them free from mealy bug. Keep the atmosphere moist by frequent damping down of the paths and walls.

Cyclamen to be potted on as required, using a light but rich compost. Well-rotted cow manure and bonemeal are good sources of food for these subjects.

Poinsettias to be potted up for winter flowering. Azaleas are worth all the care that can be bestowed upon them now; plunge out-of-doors after they have flowered with others of their kind to ripen.

Roses to be planted with all possible speed; avoid overwatering. Cultivate regularly to keep weeds down. Fumigate if green fly troubles.

Carnations in the benches may be discarded. Continue cultivating the young stock outdoors and keep the leading shoots topped as they begin to make headway. If your soil is such that you have to resort to watering the plants in the field this month, reduce the supply toward the middle of the period so that the plants will not be too soft for benching early next month.

Plunge Amaryllis up to the rims of the pots in frames and keep the sashes elevated all the time. They are making their growth now for next season's flowering and, in addition to an abundance of water, a top-dressing of commercial preparation of fertilizer or applications of liquid manure will be of benefit to them. Seedlings to be kept growing along, having no rest until they have flowered.

Pelargoniums for propagating to have the water supply reduced so the wood will ripen.

Decorative plants are now at the height of their growing season; see that growth does not become too soft. Shade only enough to break direct rays of the sun and give abundant ventilation on all favorable occasions. Old plants of advanced age and size should be repotted if necessary.

Christmas Peppers and Bouvardias planted outdoors to be pinched at frequent intervals to induce bushiness.

Calanthes now growing freely will take water liberally; do not feed until the pots have plenty of roots in them. Syringe overhead on favorable days, but do not leave the foliage wet overnight. Calanthes like a brisk, moist heat.

Pot fruit trees need room. Nets underneath will catch any fruits that may fall off. Young Peach trees trained on trellises, making first year's wood for the forming of the main branches of the trees for years to come, to have the young wood laid in right or they will never look as they should. As the last fruit is taken from the early peach house give a thorough syringing to dislodge any red spider. Give water if the border is on the dry side, and a little feeding will help the plants to build up flower buds for next season. Keep ventilators wide open.

PRIZE POEM COMPETITION

THROUGH the generosity of Mrs. Charles H. Stout, The Garden Magazine *is privileged to announce the offer of a $50 cash prize to be awarded for a new and original poem on the Dahlia. Verse submitted in this competition must be of joyous mood in any lyric form, but not exceeding six stanzas in length. Competition closes October 1st, 1924, and all entries must reach* The Garden Magazine *not later than that day. Contestants may submit any number of entries, with the name and address of the author plainly marked on each one, addressing them to the Dahlia Poem Contest, c/o Editors of* The Garden Magazine, *Garden City, N. Y.*

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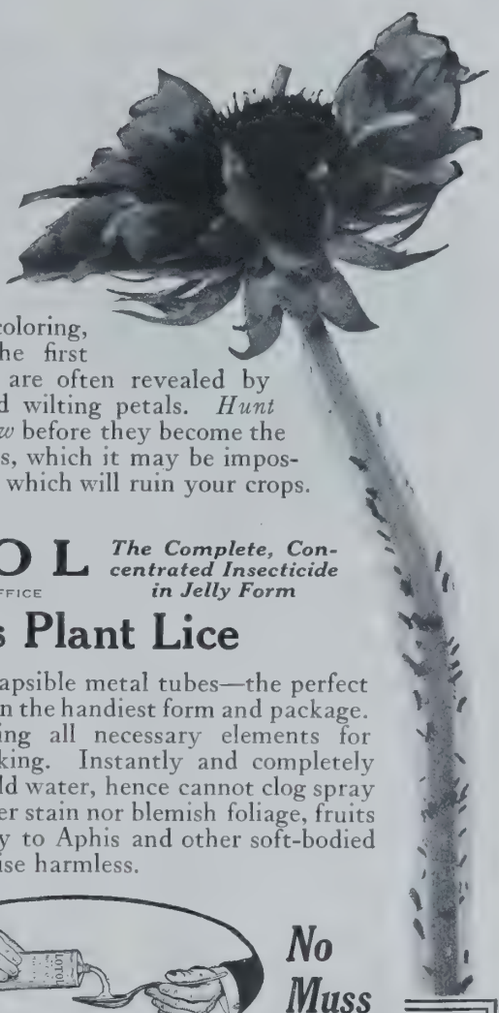

PROTECTED as they frequently are by imitative coloring, the presence of the first Aphis or Plantlice are often revealed by drooping stems and wilting petals. *Hunt for these pioneers now* before they become the ancestors of millions, which it may be impossible to control and which will ruin your crops. Kill them with

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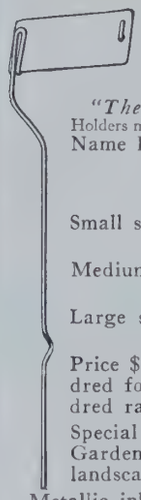

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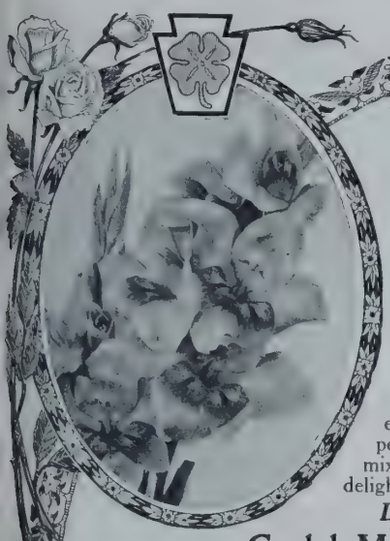

Flowers ALL Summer

Some one has called the Gladiolus "the most satisfactory all round summer flower" and we are inclined to agree. Easily grown in any soil, they simply can not help but bloom. The cut stalks last for a week or more. By planting repeatedly, a week apart, throughout June and July, a constant supply of lovely flowers may easily be had, at small expense. Those not satisfied with mixtures offered ordinarily will be delighted with

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Gold Medal Mixtures

Made up of a large number of high-priced **named** and **exquisitely colored,** varieties, but offered in mixtures **only,** as follows:—

Selection No. 1. Contains all shades of scarlet, blood red, amaranth, garnet and other similar rich tones.

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A veritable mine of useful information for home gardeners. Its 224 pages **deal in facts** about the choicest Cannas, Dahlias, Gladioli, Water Lilies and other bulbs and plants for present planting. Gladly mailed free to every reader of this publication, which please mention.

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HAMMOND'S SLUG-SHOT — 1880 — 1915 — AN INSECTICIDE FOR GARDEN USE — USED SINCE 1880 — TRADE MARK

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bodily destroys all kinds of plant lice or Aphis. It is a powerful contact poison used against all sapsucking insects.

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is a fungicide preventing mildew and other plant diseases. Equally effective for greenhouse or outdoor use. An easily applied powder.

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A Timely DAFFODIL Suggestion

Make a Permanent Planting before importation is shut off. Owing to a ruling of the Federal Horticultural Board, effective 1925, the finer varieties of Daffodils will soon become very scarce and expensive. Now is the time to make sure of having them in your garden for years to come.

ELLIOTT'S SUGGEST a selection of Daffodils ideally suited for naturalizing in locations where they need absolutely no care after planting. Bulbs of the right size—varieties chosen for beauty and hardiness—once planted they need never be renewed but will increase in numbers and beauty year after year. It is the easiest and most economical way of growing flowers by the hundreds and thousands.

SPECIAL—Selected Daffodils for Naturalizing

Poeticus ornatus. Improved Poet's Narcissus. Pure white, star-shaped flowers, with shallow cup of yellow, edged bright red.

Autocrat. Of the Incomparabilis type, with short, wide trumpet and large perianth, rich yellow throughout.

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Blood Orange. Wide, creamy yellow perianth, cup brilliant reddish orange; exquisitely filled.

Emperor. One of the largest and finest Giant Trumpets. Both spreading perianth and long, flaring trumpet are rich, deep yellow.

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Collection (NA)— 10 bulbs of each, 60 in all.....$ 4.00
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Complete directions for planting and care with every order. Above special offers good only until July 1st. Order now. You can pay when bulbs arrive in September or take 5% discount for cash with order. Safe arrival guaranteed.

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Makes bulb growing easy. Elliott's Import Catalogue for 1924 contains hundreds of practical suggestions for those who want to know the best and easiest ways to grow Hyacinths, Tulips, Daffodils, Lilies and other bulbs, indoors and out. It describes thousands of the best varieties, many of them illustrated in their natural colors.

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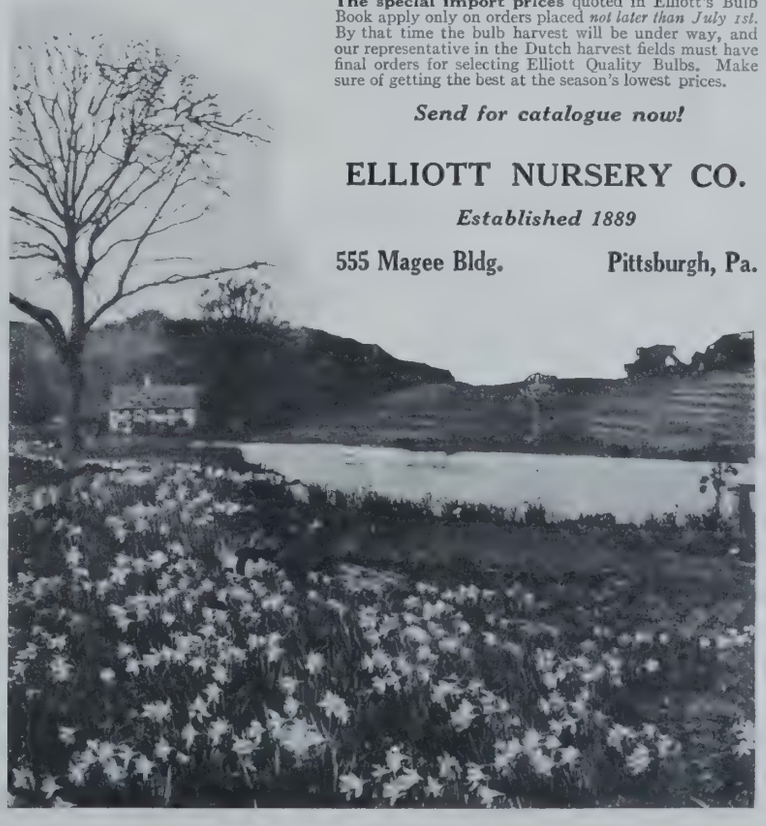

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Takes Place of Manure for Lawns and Garden

Alphano is nature's own soil enricher.
It not only takes the place of all kinds of manure, but is far better in every way.
It's richer.
Contains no weed seeds.
Has no odor.
Is thoroughly sanitary.
Being in powdered form, it's easy to use.
Being rich in both the quick and slow acting foods, it gives both immediate and long lasting results.
It's heavily inoculated with soil food producing and nitrogen nodule making bacteria, giving it added value.

4 bags of 100 pounds each for $5.
By the ton in bags, $20.
By the carload in bags, $16 a ton.
By the carload in bulk, $12 a ton.
Prices do not include freight charges from Alphano, New Jersey.

Having a liberal humus content, it eagerly absorbs moisture, acting as a valuable dry weather fortifier.
It enriches sandy soils and holds them together.
It loosens up and makes clayey ones friable and fertile.
Being odorless and in a convenient powdered form, it makes gardening easy for women.
Sold with a guarantee that is a guarantee.
For vegetables, flowers, and lawns we frankly believe it has no equal for the money.
Send for circular giving full particulars.

Standard Agricultural Chemical Corporation

Sole Producers of Alphano. Successor to The Alphano Humus Co.
2 Rector Street, New York City

Iris and Peonies

WE specialize in high quality production on two early summer flowers best suited for garden and home beautification, the Iris and the Peony.

HUBBARD'S Master Lists *of Peonies and Iris* will give you in orderly form a convenient arrangement for ordering. Satisfied customers of long standing, sending us repeat orders yearly, attest the trueness and quality of our stock and the service we render. Order now to insure varieties wanted and plant at the proper seasons.

Hubbard's unique guarantee is applied to both Iris and Peonies and states plainly: "We will replace with three any plant blooming not true to description." Furthermore, we will replace any article that might be received in bad condition.

Iris shipped after July 1.
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for vegetable, flower, lawn, shrub and tree
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***Extra large bulbs*, $5.00 per dozen**
(Postage prepaid)

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Discussing:
How ingenuity takes the place of money in creating a garden. The value of restraint in planning. Ways of enclosing the garden, trellises, walls, hedges, borders. Personality is expressed in the garden. The charm of water. Wild flower gardens, and gardens in the Italian manner. Homemade pools, pathways, gates, and garden furniture. Flower portraiture, rare flowers, the dramatic amaryllis. The practicability of beauty.
Illustrated by colored slides, pictures taken in real gardens.

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Waters any lawn, large or small, easier, quicker and better. A fast worker on low or high pressure. Sets in a jiffy for stationery or whirling, coarse or fine spray. Sprinkles farther than other sprinklers. A double barreled sprinkler, ideal for watering any garden or lawn—even sprays around a corner. Each nozzle can be set to any position. The Rain King has long wear bearings. A combination of the best stationary and the best revolving sprinkler—does more than both combined. At your dealer's or send us $3.50 and we will send you a Rain King postpaid. Money back if it isn't the most wonderful sprinkler you ever saw.

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The Best Sprinkler Made

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Use HUMUS in your 1924 soil building operations. Commercial Humus is an ideal Natural Humus—coarse, fibrous and in an active state of decomposition. The HUMUS that is different and always reliable.

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Spray

Perfect roses and other flowers like those you admire at florists and strive to grow in your own garden, are possible only when plants, leaves and buds are kept free from aphides (plant lice), thrips, leaf hopper, and similar insect pests by spraying thoroughly.

"Black Leaf 40" is the "old reliable" specific for all these enemies of flowers, vegetables and fruit. Now is the time to spray.

Bottle making 6 gallons of strong spray, 35 cents. At your dealers. If he is out, send us his name.

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"Black Leaf 40" Kills Aphis
40% NICOTINE

Your Hoe and Your Hose

The wheel hoe and the garden hose are inseparable companions in every garden. Water thoroughly and deeply. Then cultivate to lighten soil and keep the moisture in. Amateur gardeners should send for our new book

"Making the Garden Grow"

written by a prominent horticulturist and just off the press for distribution. 48 pages printed in three colors. "A professional hand book for amateur gardeners."

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a strong, lightweight, medium priced hose for general use around lawn, garden and garage. GOOD LUCK is one of our three famous brands of 5/8ths hose. The other two are BULL DOG the strongest and longest-lived hose on the market, and MILO a cord hose which will not kink.

Send 10 cents in Stamps

for "MAKING THE GARDEN GROW" —it costs us more than twice that price to print it—and we will enclose some of our literature about garden hose and how to use it to the best advantage.

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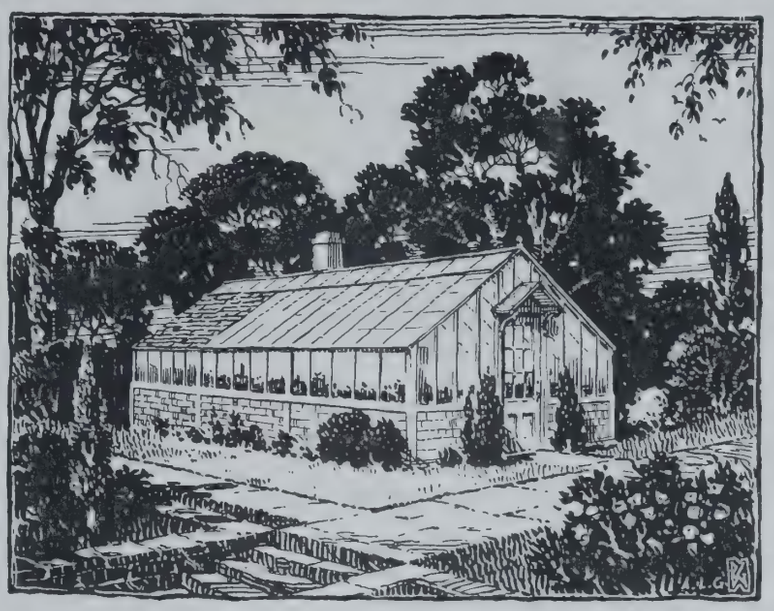

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IT'S called that, because after all, that's what it really is.
It's just one of the cheeriest, sunniest of garden spots imaginable.
A place where, say what you will, cares have a way of slipping off.

You ask why?
There's but one answer.
It's wholesomeness.
The digging in the dirt a bit and playing with your flower friends, has no equal for putting you on the sunny side of the street.

But quite the best of all, the whole family share in the joys of the flowers grown.

For its very modest price—*and it certainly is modest*—there is now no reason why you can't have this Sunshine Shop.

Send for the Sunshine Shop Circular, or for our general catalogue of larger houses.
They fully give the facts.

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Dubl-Duti

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Weeds—must go! They sap the garden's fertility, keep back the cultivated crop. Getting rid of weeds becomes a pleasant pastime with the good help of

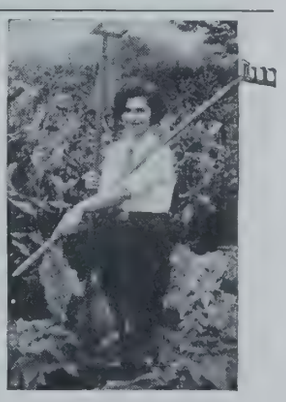
Gilson DUBL-DUTI

As shown to left, cutting blade is sharp on both sides.

It "gets" the weeds coming and going besides mulching the soil.

KIL-WEED Kultivator

The cultivator for heavier soil —teeth are "V" shaped for cutting weeds and shaped correctly for entering the soil without downward pressure. Shown on shoulder of gardener to right.



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If your dealer cannot supply them we will! Free booklet giving helpful hints on gardening gladly mailed on request.

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Vaughan's Iris

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The figures before the names are the ratings of the American Iris Society on a scale of 10.

9.4 *Ambassadeur.* 40 inches. Smoky bronze; and dark velvety maroon. Late. Each, $4.00.

8.3 *La Neige.* 24 inches. A glistening ivory white. Late. Each, $1.25; 3 for $3.25; dozen, $10.00.

9.6 *Lent A. Williamson.* 42 inches. Lavender-violet; and velvety royal purple. The flowers are of gigantic size; it is tall and luxuriant grower. Each, $2.25; 3 for $6.00.

9.1 *Magnifica.* 44 inches. "S" light purple on white; "F" dark reddish purple. A fine strong plant with branching stems close to 4 feet tall. Flowers of heavy texture, measuring 6 inches high; stands heat well. Very fragrant. Midseason. Each, $5.00.

9.0 *Queen Caterina.* 40 inches. Pale lavender violet with orange beard. Midseason. Each, $4.50.

9.3 *Souv. de Mad. Gaudichau.* This is without a doubt the most beautiful of all the deep purple Iris. The plants are vigorous, and the magnificent flowers, of great size, form and substance. Early. Each, $7.00.

LOW PRICED COLLECTIONS

Giant Flowered Sorts

1 plant each, for $2.00. 3 plants each, for $5.00.
Alcazar, Isolene, Monsignor, Dorothea, Loute, Twilight.

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One each. 12 varieties, our selection, for $1.00, prepaid.

Good Mixture

For large plantings and naturalizing, splendid value. Per 100, $4.00; per 1,000, $25.00. (By express at buyer's expense.)

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SPECIAL OFFER OF IRIS

Fine Varieties

Plant July to September for Next Season's Blooming

Prices Include Packing and Postage

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Caprice—Deep rosy claret with yellow beard	.30	2.00
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Pallida Albert Victor—Standards soft blue; falls beautiful silvery lavender. Flowers very large and showy.....	.30	2.00

40 Plants, 5 of each variety.....$11.00
80 " 10 " " " 20.00

No Order Accepted for Less Than Two Dollars

General Nursery Catalogue gladly sent on request

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Make Your Lawn a Source of Pride

Keep it as smooth and velvety as a parlor rug with one-fourth the time and expense required with hand mowers. From coast to coast, over a period of years, the Jacobsen 4-Acre Power Lawn Mower has demonstrated its superior performance. A mechanic is not necessary to operate it—as simple as a vacuum sweeper.

Jacobsen 4-Acre Power Lawn Mower

Guaranteed to do more and better work at less cost and to outlast any other power mower. Guides in and out among trees, flower beds, shrubs, etc., as easily as a light hand mower. Travels on its own power—no pushing necessary. Knives are sharpened by mower's own power without removing the reel.

Saves Time and Money

Cuts fully 4-Acres a day with one man and a gallon of gas. Ample power for grades and tough spots. Works on a 30-degree incline. Satisfaction guaranteed.

Our Jacobsen Estate Mower is a wonder for especially fine medium size lawns.

Write Today
for beautiful free book describing the mower and picturing many beautiful lawns of satisfied users.

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Makes Your House Like a Thermos Bottle

Keeps it Warm in Winter and Cool in Summer by Insulation

CABOT'S "QUILT" insulates the whole house. It saves the heat in winter—saves from a third to a half of your coal bill. It keeps the heat out in summer, making the house cooler.

Quilt lasts as long as the house. It saves your money and keeps you comfortable all the time. No investment that you can make will earn such dividends as Quilt in cutting down coal and doctor's bills and making the house cozy and healthful.

Quilt is not a mere felt or paper. One layer has insulating power equal to twenty-eight layers of common building paper.

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Cabot's Creosote Stains, Conservo Wood Preservative, Stucco and Brick Stains

Success with Roses by Robert Pyle

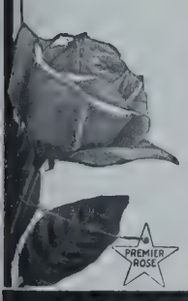
June Time! Rose Time!

Now is the winter of your discontent made glorious summer by the myriad roses blooming in regal splendor across your garden. Now comes the time of the fullest enjoyment of Nature's most beautiful gift. And now comes the time to take special care of your blooms to preserve them in their greatest abundance.

In June remember to pick your Roses. As beautiful as roses are upon their graceful stems they are equally beautiful upon your table and in your rooms. Frequently-cut roses bloom more freely. Watch for the rose beetle and rose slug. They come in June. Spray every ten days for three weeks with a half pound of arsenate of lead to ten gallons of water. About June 10, begin to nourish the Teas and Hybrid Teas with liquid manure. June 20, look for mildew. Upon its first appearance apply, with a dust gun, "All in one" (we have it), a ground dust mixture consisting of 90 parts sulphur and 10 parts of arsenate of lead. Repeat the dose in a week if necessary.

From "How to Grow Roses"

Price $2.00 postpaid by Robert Pyle



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Our advanced Bulb Catalogue lists and fully describes the finest varieties of *Dutch, French* and *Japanese* Bulbs, for delivery in the autumn.

Attractive prices for orders sent up to July 15th.

Catalogue sent on request

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RARE PEONIES and IRISES

Send for Catalogue

Hundreds of the newest American and European varieties attractively priced.

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Peony and Iris Garden Van Wert, Ohio

Dependable Irises

24 free blooming varieties in a wide range of colors. If purchased separately at our low prices, would cost $8.50. We will mail the entire collection, one of each, **postpaid, for only $5.00.** The most attractive offer we have ever made. Order early.

	Each		Each
Black Prince	$ .35	*Loreley*	$ .25
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Caprice	.30	*Perfection*	.25
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Eldorado	.50	*Rose Unique*	.35
Fairy	.25	*Sherwin Wright*	.35
Gertrude	.25	*Queen Alexandra*	.50
Jeanne D'Arc	.50	*Quaker Lady*	.50
Juniata	.35	*W. F. Christman*	.35
Lohengrin	.25	*Zanerdeni*	.25
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Peonies—*For September Delivery*

Three High Class Peonies of Exceptional Merit

9.2—*Mons. Jules Elie*, Early Pink $1.50
9.0—*Baroness Schroeder*, Late White..... 1.50
8.8—*Karl Rosenfield*, Midseason Red 2.00

Note the high score, hard to beat this trio.

Large 3 to 5 eye divisions, or 1 year Plants. One of each, only $4.00 postpaid.

Orders booked now

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do not require weathering

3 for $5.00

Bluebird Robin Wren

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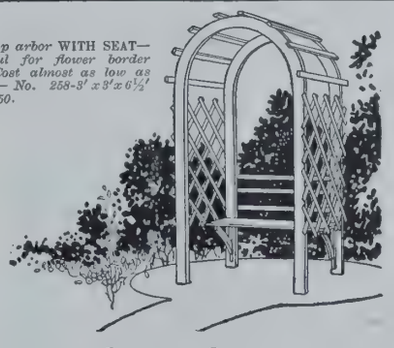

Circle top arbor WITH SEAT—*delightful for flower border path. Cost almost as low as lumber — No. 258-3′ x 3′ x 6½′ -at $19.50.*

Dress up the garden with a few dollars!

OUR beautiful, useful garden decoration saves you many dollars. Carpenters' time and your own is saved. Pieces come already to put up and to paint any color you wish. Each is charming in design and will add beauty to a garden large or small. Of selected fir.

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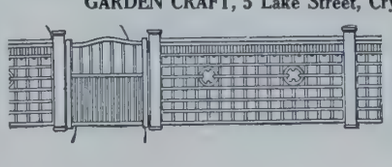

Lattice fence and gate—strong for protection — an artistic background for climbing vines. Fence No. 240 at $1.50 per foot. Gate No. 305 at $8.00.

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The ordinary lawnmower is heavy and hard to push. MontaMower is light, easy to operate, takes hard work out of cutting the grass.

The New Easy Way to Cut Lawns

MontaMower — a new and entirely different lawnmower—takes the hard work out of mowing lawns. Light—weighs only 7½ lbs. — handles as easily as a rake. Cuts lawn perfectly —leaves no wheel marks or ridges— trims close to walls, trees, etc. No hand trimming necessary.

$18.00 *Direct from factory*

Simple—Durable—Entirely Different

MontaMower is the result of ten years development—no gears—no long blades to get out of order or break—eight pair of circular, toothed cutters driven by eight wheels shear the grass evenly. MontaMower is built overstrength—made from finest steel—cutters will last from two to four years without replacing or sharpening. Can be easily replaced at very small cost.

Light — Handles as Easily as a Rake

Weighs only 7½ lbs.—can be operated by a woman or child without effort—easily carried to and from basement. Practically silent in operation. Thousands of satisfied owners all over the country.

Unlike ordinary mower MontaMower trims cleanly right up to walls, fences, etc.

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"Our MontaMower attracted quite a number of onlookers and all were interested in the rapid manner in which this mower cut down the thick grass."

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Send check or draft for $18.00 direct to factory. Guaranteed to be as represented or money refunded. Delivery charges prepaid if remittance accompanies order.

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GRAND RAPIDS : : MICHIGAN
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Send me one MontaMower by parcel post, prepaid. I enclosed $18.00 in full payment.

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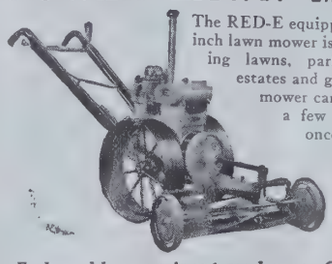
Red E Power Cultivator

Does work of four men or one horse, seeds, weeds and cultivates narrow row crops, does light plowing in garden-land, turns over soil in poultry yards, prepares beds in greenhouses, weeds, cultivates, discs, harrows, pulverizes and mulches between wide row crops, mows the lawn, does stationary power work and hauls light loads.

Sturdily built and perfectly balanced—with 4 H. P., 4-cycle Air-Cooled Engine, Bosch Magneto, Automatic Lubrication and Complete Dust Protection. Many parts interchangeable with well-known low-priced auto. Uses Planet Jr. Wheel Hoe and One Horse Tools—all easily attached or detached. Throttles to slower speed than any other power cultivator. Turns easily.

POWER LAWN MOWER



The RED-E equipped with our 31 inch lawn mower is ideal for mowing lawns, parks, cemeteries, estates and golf courses. The mower can be attached in a few moments and, once on, furnishes an outfit that will take the place of six men with hand machines.

Endorsed by prominent gardeners. Order through your dealer or write us for literature and prices.

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We find it for you by locating the money-saving ways to operate your estate or farm. We stop the leaks without disturbing management. Let us assist you in devising schedules and plans, selecting your help and coöperating in your management. Reasonable service rates.
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Valuable information on roses, Lilacs, Peonies and shrubs. ALL OUR ROSES ARE GUARANTEED TRUE TO NAME, and *Budded* on the long-living *Rosa multiflora japonica.* We also have some wonderful Evergreens and Box Wood.

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Only the best varieties and at reasonable prices.
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Send for catalogue
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Best for Lawns and Gardens

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Great for Lawns, Grass Plots, etc. Especially good for gardens, etc., where quick and certain results are necessary. Used extensively for small fruit, shrubbery, etc.

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Laying House

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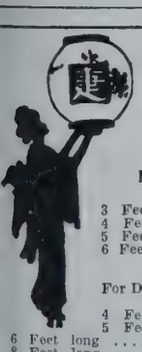

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Last for many years. Do not decay

GREEN COLORED, INVISIBLE
Light and strong.
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For Dahlias, Young Trees, Tomatoes, Pole Beans, etc.

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Raffia White—Our Pelican brand, per lb. 35c.; 5 lbs. $1.50
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We manufacture a full and complete line of Lawn Furniture, Trellises, Rose Arches, Pergolas, Arbors, Laundry Yard Fencing, etc. They are designed on attractive architectural lines.

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The World's Best Varieties

We have purchased from Mr. Wm. A. Peterson, a large quantity of peony stock in all of the best varieties and will be able next September, to supply fine, healthy plants direct from the Peterson Nursery where they are now growing.

Peterson's Peonies have been noted for their vigor, floriferousness, coloring and fragrance. Those who know the quality of Mr. Peterson's plants will appreciate this opportunity.

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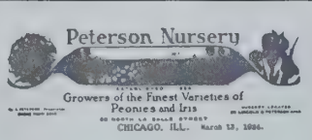

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(Signed) WM. A. PETERSON

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MASTER LIST OF PEONIES
(Formerly issued by Peterson Nursery)

will assist you in the selection of these remarkable flowers, classifying as they do colors, seasonable blooming periods and fully describing each kind and variety. We offer in addition to the varieties awarded the highest ballot, some fine ones as yet not generally known.

Your copy may be had for the asking.

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Two eye *balanced* root division

This is a division with ample crown material, two well developed buds (or eyes) and a root system balancing the crown, giving a vigorous plant needing no coddling to produce strong, satisfactory growth.

Three to five eye *standard* root division

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The Best Way To Water Your Garden

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"I take great pleasure in saying that we could not get along without your system. To produce vegetables, fruits and flowers of high quality requires water, and I know no better way of doing this than by your system, both from a practical and economic standpoint.
"We are very thorough in our work here and we use the best means for good results; therefore, my strong stand for your Skinner System."

Let us tell you just how the Skinner System works, how little it costs and what wonderful gardens it produces. Eliminates the risk of drought and the drudgery of hose-holding.

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Non-Climbable Fence

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Rhododendrons
Azaleas
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Bloom this month!

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If you can't come, ask for catalogue.

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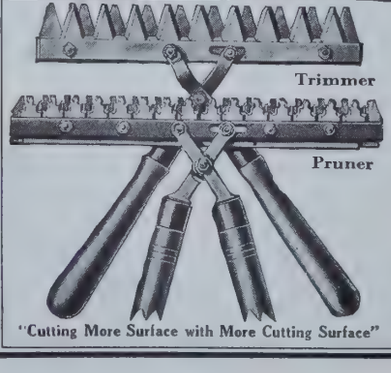

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Great News for Hedge Owners:

The Simplicity Hedge Trimmer

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BEAUTIFY the interior of your home, of course, but do not deny the grounds about it those touches that add so much to beauty—so much to pleasure—so much to comfort.

Garden furnishings—pergolas—rose arbors, lattice fences, lawn umbrellas, gazing globes, sundials, artificial stone bird baths, fountains and flower vases—all these contain a wealth of possibilities in the hands of one whose taste is expert.

Our ability of America's largest designers and builders of these products—our 25 years' experience—offer you many advantages and economies. We produce at less cost than the local carpenter. Our products are correct architecturally and are quality-built. Many embody the famous Koll Lock-Joint Columns.

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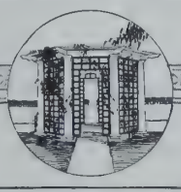
Koll Lock-Joint Columns—Pergolas—Rose Arbors
Garden Furniture and Accessories



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Come to the nursery (or write us) tell us your desires and let us advise you; we have had an abundant experience that will be freely given. Both you and we will enjoy the visit.

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YOU would never guess that this dainty Callahan Greenhouse, nestling in its bower of shrubbery, cost the owner no more than an ordinary garage. Yet it is true—because Callahan Greenhouses are built in standardized units at a great saving in first cost and in labor of erection.

Callahan Greenhouses

bring garden lovers of modern means the year 'round joy of a perpetual garden. They are a happy combination of beauty and utility—built entirely of cypress so that they will last a life-time.

Now is the time to erect your greenhouse and start the seeds for winter blooms. Write for The Greenhouse Book with illustrations and prices. It is free.

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Unless you keep them free from pests.

Plant pests will kill any plant.

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DY-SECT gives off a gas that paralyses the pests—then the liquid kills them before they can retreat to safety. One gallon of DY-SECT makes fifty gallons of killing spray.

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the garden insecticide

Kills among others red spider, corn borer, mealy bug, aster beetle, aphis, (plant lice) thrips, soft scale, leaf hopper, red bug, cucumber, squash and cabbage beetle.

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Specialize in rare and fine varieties of Bearded Iris.

Planting Season July

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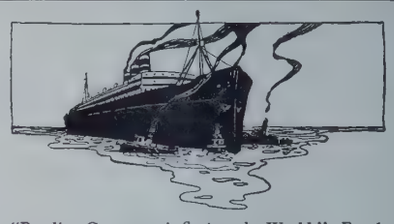

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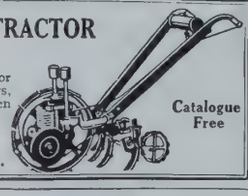

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Before me, a Notary Public in and for the State and County aforesaid, personally appeared S. A. Everitt, who, having been duly sworn according to law, deposes and says that he is the Treasurer of Doubleday, Page & Company owners of the Garden Magazine and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

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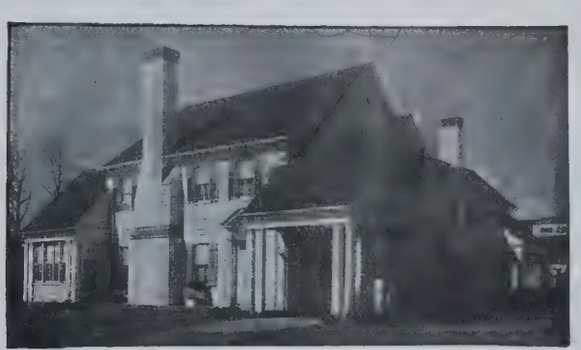

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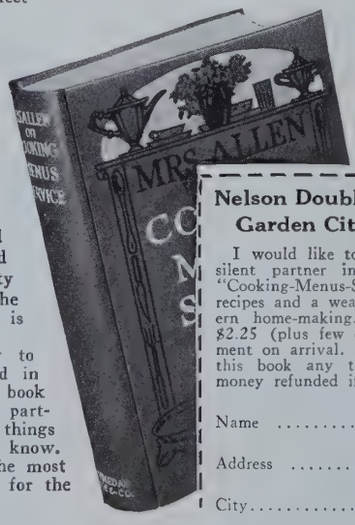

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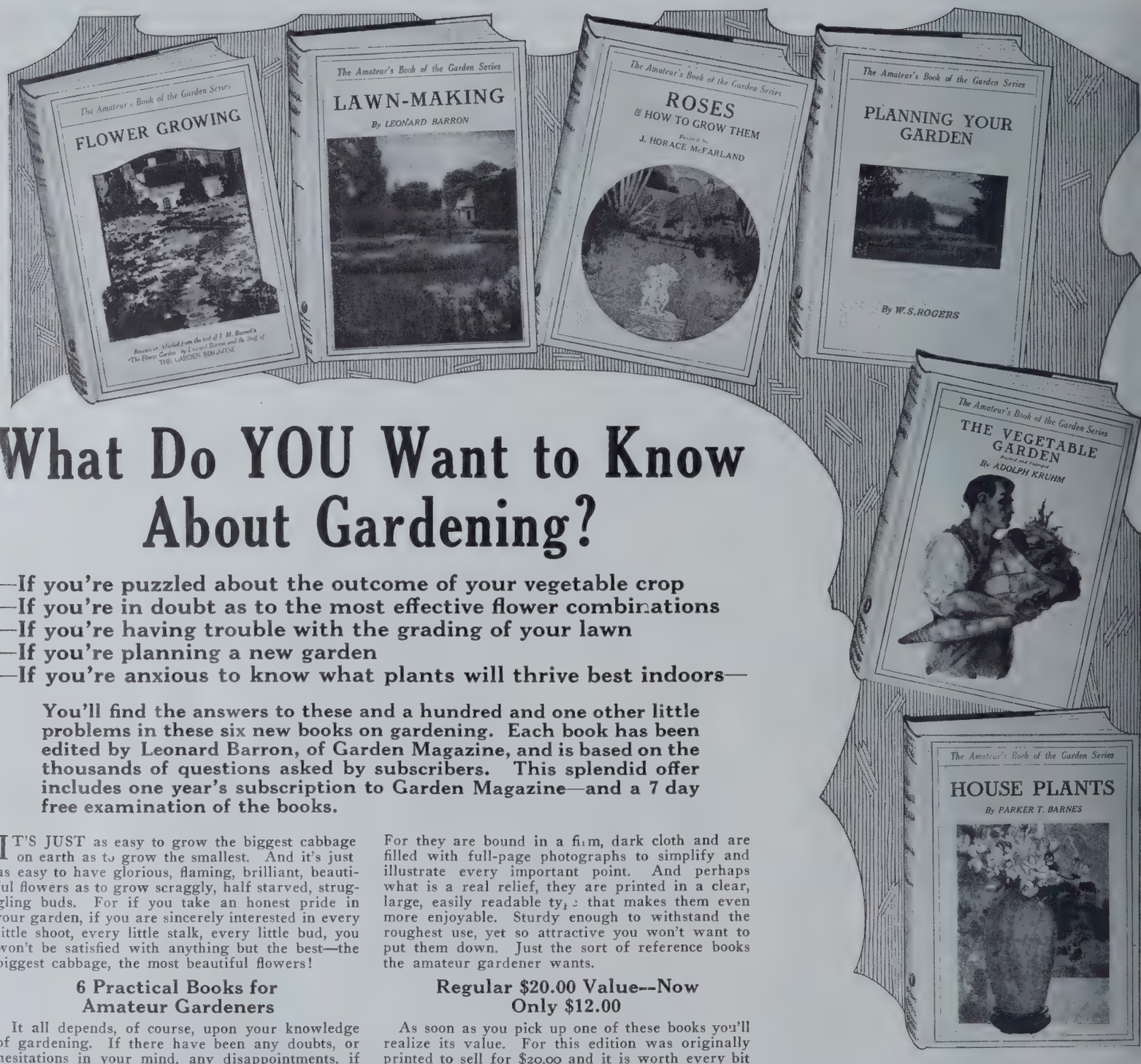
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JULY, 1924

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VOL. XXXIX. No. 5

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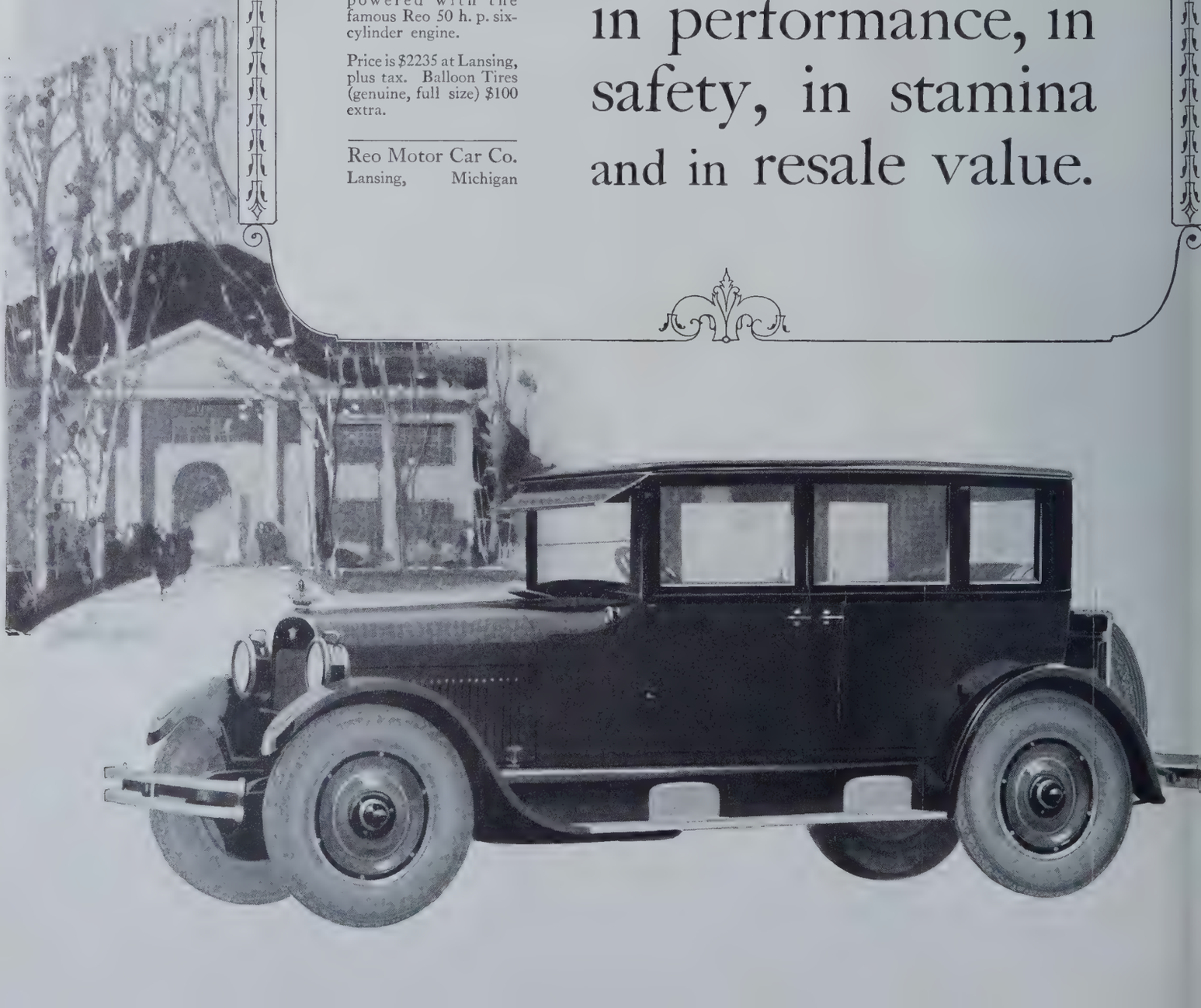

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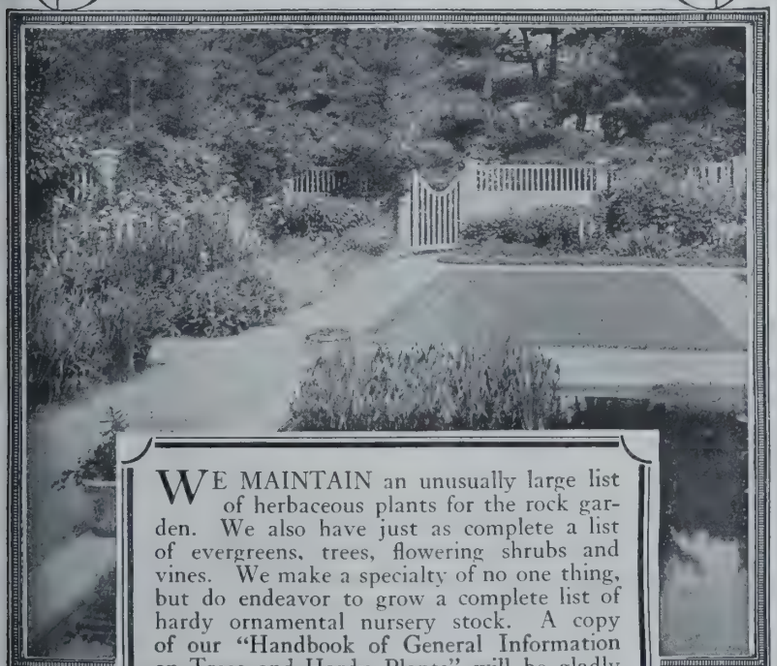

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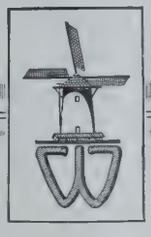

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When "Watchful Waiting" Does NOT Pay

Every year Holland produces a certain quantity of *super* quality bulbs. When they are sold out, ordinary quality bulbs are used to fill orders and the end of the season frequently sees the dealers outbid each other even for the "culls" of certain varieties.

Now, in the first place, we *never* offer culls. Ordinary quality bulbs do not bear exhibition flowers. It takes a bulb product *above* the ordinary to satisfy us and such a product is never abundant, especially in the choicer varieties. Now then, here is our eleventh hour reminder:—If you must have

"Bulbs in a Class All Their Own!"

write NOW for our Catalogue of Hyacinths, Tulips, Daffodils, Crocuses, etc. No money required until after bulbs are delivered. Simply make out your order, send in promptly and we shall forward it to Holland. For the best of your bulb garden it is best to have the bulbs packed in Holland because it's the repeated handling of the bulbs that's injurious. So, *please* write *to-day!*

ZANDBERGEN BROS., *"Tulipdom"*
Oyster Bay, Long Island, New York
Nurseries at Valkenburg, near Leiden, Holland

The Garden MAGAZINE

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Mattie Edwards Hewitt, photo.

"MID-SUMMER BLOOMS WITHIN OUR GARDEN-WAYS;
THE POOLS ARE CLEAR AS GLASS
BETWEEN THE WHITE CUPS OF THE LILY-FLOWERS"
Emile Verhaeren

Fragrant and refreshing are the tall Madonna and Easter Lilies and the Canterbury-bells with their delicate, cool tints—a delightful way of bringing a bit of the garden closer where it may be enjoyed at ease through long, warm mid-summer days. At the home of Mrs. W. D. Denegre at Manchester, Mass.

"O, FLOWER-DE-LUCE, BLOOM ON, AND LET THE RIVER
LINGER TO KISS THY FEET!
O, FLOWER OF SONG, BLOOM ON, AND MAKE FOREVER
THE WORLD MORE FAIR AND SWEET"

Henry W. Longfellow

The Japanese Iris, with its big floppy blooms lifted high on slender stalks, is full of character and grace and fitly terminates the long procession of Irises that thread their way through gardens from May till mid-July. Here at Milton, Mass., Dr. Harris Kennedy has supplied it with growing conditions and a setting much like that of its native Japan and it seems to be responding gratefully

Thomas Ellison, photo.

"GARDEN OF GARDEN BORN
THROUGH CENTURIES,
EVE MAY HAVE GATHERED FLOWERS
LIKE SOME OF THESE."

Louise Driscoll

With the long tradition of Old World gardens behind it, the American garden is slowly emerging into something distinct and apart from its rich inheritance, acquiring a character in keeping with the natural landscape of the New World. A few plants—Sedum, Shasta Daisy, Phlox, Peonies, Iris, etc.—in alternating clumps are put to effective use here in this pleasantly formal garden at Cleveland, Ohio, designed by William Pitkin, Jr., for Miss C. A. Grasselli

THE HOUSEWIFE & HER HOME GARDEN

SALADS AS HEALTH BUILDERS

G. O. LUROS
Nutritional Chemist

Raw Fruits and Vegetables as Nature's Insurance Against Disease
Tomatoes vs. Tuberculosis, and the Case of Carrots vs. Cancer

EDITORS' Note: The garden is, of course, not merely an outdoor plaything but an integral part of the household's life, contributing not only diversion but often a very substantial share of the day's menu. The most carefully raised vegetables, the most delicious of fruits, the loveliest of flowers may come to naught through careless or ignorant handling by those indoors, thus nullifying the gardener's best efforts and completely discouraging their renewal.

Intelligent housewifery is the garden's best ally; therefore we take pleasure in announcing the establishment of a new department—The Housewife and Her Home Garden—which will be concerned with matters of specific interest to the "lady of the house"—recipes, articles on flower arrangement, table decoration, food values in relation to family health, and all the diversified activites and interests of a competently run ménage in whose success the garden is an important, if silent partner. (The first article on "Prize Winning Jellies and Jams and Canning by the Fancy Pack Method" appeared in June.)

EAT more fresh salads. Eat them for lunch and again for dinner. Nature has always been our best medicine man. Give her a chance to remake your system with her simple remedy of fresh, raw vegetables and fruits. Lurking in these raw vegetables and fruits we find those much-talked-of vitally important vitamins, invisible to the eye yet holding our very lives in their grasp. We know that raw foods contain in their most potent state all of the three main types of vitamins (see accompanying chart) which most concern us and therefore should fill a large place in our daily menu.

Eat more raw foods is the cry of the modern dietitians and doctors. The first case of cancer among savage peoples has yet to make its appearance. The finger seems to point to the large amount of raw foods they eat daily. Millions of dollars are spent yearly in efforts to find a cure for this devastating disease that every year adds greater numbers to its toll of victims, and scientists are beginning to look for a connection between cancer and the amount of vitamins in the diet. Then these large amounts of vitamins in their natural state in our raw foods are also able warriors against diabetes, tuberculosis, and pneumonia, fellow ravagers of humanity. The old adage: "An ounce of prevention is worth a pound of cure," again holds good so let us keep one jump ahead of disease by assuring ourselves of an abundance of all types of vitamins at all times.

Where will you find raw foods more appetizingly served than in tempting salads? Here lettuce comes into its own. Can you imagine a salad without that background of crisp, green leaves? Even the sight of those masses of cool, crisp green, splotched here and there with dabs of fluffy mayonnaise seems to put starch into our winter-limpened frames. But sight alone will not keep up this transformation. Don't be overpolite and leave the best part of the salad as background, untouched on your plate! The flood of vim and vigor we feel in early summer, after getting back to our simple appetizing salads, is due to the increase of vitamins furnished by the ingredients of these same salads, and the relative amounts of vitamins in the various fresh raw vegetables and fruits are indicated on the accompanying chart.

Lettuce and its kin, the endives and cresses, along with our ever-faithful tomato, head the list. Next marches cabbage, followed by raw carrots and onions with cucumbers, celery, and radishes bringing up the rear. We have included the fresh fruits that we so enjoy in our salads and which deserve a place because of the large amount of vitamins B and C they contain, also for the large amounts of mineral salts found in them as well as in our vegetables.

Besides giving us the valuable vitamins and mineral salts in their natural and most potent state, raw foods give them also in greater quantity; whereas, cooked, the greater part of that precious store is lost in draining off the liquor.

VITAMINS IN OUR FRESH SALADS

	Vitamin A	Vitamin B	Vitamin C
Lettuce, endives, cresses	++	+	+++
Tomatoes (raw)	+++	+-	+++
Cabbage (raw)	+	+	+++
Carrots (raw)	+	+	+++
Cucumbers	—	+	—
Celery	—	+	-
Radishes	—	+	-
Onions	—	++	++
Oranges	?	++	+++?
Lemons		+-	+++?
Grapefruit	—	++	+++
Apples	—	+	+
Bananas	+	+	+
Egg yolk	++	++	
Olive oil	+		—
Corn oil	++	—	-
Cottonseed oil	+	—	—

+contains small amount of vitamin.
++good source of vitamin
+++ abundance of vitamin
? doubt as to presence or relative amount
—no appreciable amount of vitamin

The three main types of vitamins which most concern us and which are so plentiful in our fresh salads are:

VITAMIN A, *fat-soluble, absence in the diet produces a serious eye-disease called xerophthalmia, resulting in blindness and death. Fortunately this disease is very rare in this country. However, an abundance of A increases our resistance to colds and pneumonia, promotes the growth of luxuriant hair, preserves and safeguards our teeth from pyorrhea and decay, and thus adds years to our span of life.*

VITAMIN B, *water-soluble, absence in the diet produces beri-beri, a serious disease of the nervous system very common among white-rice-eating Orientals but, fortunately, very uncommon in our country. An insufficient amount of B, however, tends toward lung infections, malnutrition, and general digestive disturbances.*

VITAMIN C, *water-soluble, absence produces scurvy.*

Since most of our foods greet us at our tables in a cooked or heated state, it is well to know what effect this heating or cooking has on the vitamins. It has been found that common methods of cooking and canning (with the exception of frying) have no disastrous effect on vitamin A, have very little on B (depending on the length of time of heating), but do practically destroy C, unless the cooking is done in a pressure cooker with absence of air, as, for example, with the commercially canned tomatoes which remain rich in vitamin C.

OF THE dressings commonly served with salads, first in nutritional value comes our French mayonnaise, made by beating up the yolk of an egg with generous amounts of either olive oil, purified cottonseed or corn oil and the juice of a lemon and then adding seasonings. The wealth of all three types of vitamins in this delicious mayonnaise is shown in the accompanying chart and it is easy to understand why it should take the lead. Next in popularity comes French dressing made with olive oil, refined cottonseed or corn oil, together with vinegar or lemon juice, and seasonings. If you use lemon juice you have a nutritious dressing, rich in vitamins, but this is not the case when vinegar is used for it lacks practically all

the highly important vitamins. Last on the list with respect to both vitamins and ease of digestibility is the cooked mayonnaise made by boiling up the yolks of eggs with mustard, sugar, vinegar, water, flour, and seasonings.

Because of the unmeasured service that these fresh salads bestow not only upon our digestive systems, but upon our whole bodies, let us take them out of the luxury class and place them permanently on our daily menus thus not only keeping ourselves free from pains and ills but paving the way for better and healthier future generations.

SOME APPETIZING SALADS THAT ARE ALSO NUTRITIOUS

Cucumber Boats: Pare medium-sized cucumbers and cut in halves lengthwise. Place on ice till thoroughly chilled. Scoop out centers leaving a thin shell. Mix the pulp with equal parts of green peppers, cut very fine, cream cheese that has been mixed with finely chopped English walnuts, and onion to taste. Mix thoroughly, seasoning with salt and paprika. Fill the cucumber shells, place them on crisp lettuce leaves and serve with mayonnaise dressing.

Pineapple and Tomato de Luxe: Use round, medium-sized tomatoes for this. Scald in boiling water, then cold dip and remove the skins. Place on ice until desired. Then cut slice from stem end of the tomatoes and with a sharp knife remove as much pulp as possible. Mix together equal parts of pineapple cut into small cubes, celery, nuts, cucumber and enough chopped sweet peppers to taste. Salt slightly, mix with mayonnaise dressing and fill the tomato cups. Place on lettuce leaves, add more mayonnaise and serve.

Apple Royal: Pare and halve large, tart apples. Remove seeds and drop into a boiling syrup made of 1½ cups of water and 1 cup sugar. When apples are transparent, remove from syrup, put on plate and place on ice. When ready to prepare the salad, carefully scoop out the centers, being careful not to mash the fruit. On chilled plates make a "nest" of finely shredded lettuce. Put the apples in the nests and fill centers with cream cheese mixed with finely chopped green peppers. Cover the apple and lettuce with celery cut into very small pieces, and sprinkle nut meats over the whole. This may be served with whipped cream dressing topped with cherries or with mayonnaise to which have been added finely chopped olives. For this, canned apples may be purchased if desired. The many flavors in this salad make it especially delicious and appetizing.

Banana Simple: Bananas cut in halves lengthwise, covered with whipped cream and finely chopped peanuts make a simple and delicious salad. Serve on lettuce leaves. If desired, the lettuce leaf may be omitted and, instead of the nuts, bitter chocolate mixed with granulated sugar may be used. This makes a dainty dessert.

Sour Cream Dressing: A new dressing often makes an old recipe seem new. This will be found especially good with many of the simple vegetable salads.

1 cup heavy sour cream, ¼ cup vinegar,
1 to 2 tablespoons of sugar, ½ teaspoon salt.

Beat the cream until stiff and add other ingredients. Chopped olives, small pickles or grated horseradish may be added to give additional flavor.

Ellen Jeffrey

USING FLOWERS DECORATIVELY

ESTELLE H. RIES

Making Little Rooms Look Bigger and Large Rooms Smaller—Harmonizing Blooms, Bowls, and Walls and Composing Arrangements to Fit

THE sense of completeness and livableness that is afforded by flowers about the house is a unique thing that can be achieved in no other way. They seem to satisfy an unfilled need in even the most opulent surroundings, while in the humbler places they are, decoratively speaking, almost indispensable. It may smack of "gilding the Lily" to talk of treating flowers decoratively; many people believe that the mere presence of flowers is sufficient decoration. And yet certain rules and regulations have invaded even this field, and the proper arrangement of flowers may be carried to quite an art.

The mere fact that flowers are present is not always proof that they are correctly serving a decorative purpose. Those selected should have a relation to the character and coloring of a room, else they are simply isolated spots without decorative importance. I have known people to spend large sums of money for professional decorators, and after achieving a finely done house, to introduce flowers of their own choosing that quite upset the scheme. In the majority of cases, no actual harm is done, but a passive, negative result is had in which the possibilities of flowers as decoration have been ignored. Most flowers are so inherently lovely that by careful grouping and selection they enhance the charm of the simplest, plainest surroundings.

WE FREQUENTLY overlook the fact that flowers fall into two usually distinct classes: color flowers and form flowers. Those whose chief beauty, like Pansies or Peonies, is one of color may be massed, and indeed, masses of them are rich and splendid. Easter Lilies are form plants and should not be crowded together

An arrangement of Clematis which conveys much of the grace and true spirit of the flower, an apparently simple achievement; but simplicity is so often the final expression of a trained decorative sense and artistic perception as in this example of Mr. Albert Herter's skill

"FOR THE DINING TABLE A LOW CENTER-PIECE IS THE MOST SATISFACTORY"

This is true first because a tall arrangement is unsociable and apt to hide one's vis-a-vis; also it is liable to be out of proportion to the size of the table itself

so that their form is obscured. A single, vigorous, flowering stalk with its wonderfully graceful leaves and flowers is bouquet enough. The finest quality of Lilies is lost in a cluster.

Since simplicity is always pleasing, it is usually desirable to confine a vase to one type of foliage and flower. If two are placed together, one should complement the other. Each should have elements which contrast with the other and elements which have something also in common. It is best to use the flowers' own foliage. Fine greens, like Asparagus or Maidenhair, would look absurd with coarse flowers like Chrysanthemums; for the best effects, this element of texture may well be considered.

Vases that are transparent or translucent are to be commended because they make it possible to see the flowers in their entirety and not detached. Stems are important not only to the life of the flower but as contributing to the artistic aspect of its form and color, and we should respect them. Do not jam the flowers into the vase as a flat-topped bunch, but let them be at different heights and always roomily accommodated. The arrangement in the vase should present a chief center of interest with one or more minor centers. It is better if irregularly balanced rather than each side just like the other.

The dining table affords one of the most popular opportunities for the use of flowers, and practicability must be considered as well as the artistic aspect. A tall, long-stemmed group serves to obstruct the view of the faces at the opposite side of the board. Further than that, it is unstable, for such a group requires a tall receptacle, and the combined height of the receptacle and the projecting flowers makes it likely to topple over. In addition to these two inconveniences, the center of interest is above eye level so that one sees chiefly the under side of the flowers. It is always better to view flowers from above, and if the group is tall it should be placed either on the floor or upon a low table. Tall flowers may be laid around the dining table individually, but any lover of flowers will refuse to do this as it proves patent indifference to the flower. Flowers are living things and they respond to good treatment as do other forms of life.

For the dining table, then, a low centre-piece is the most satisfactory. Short-stemmed flowers such as Violets, Pansies, Nasturtiums, Sweet-peas, should be properly placed in a shallow bowl. They will appear to best advantage when the individual flowers are well separated one from the other, either by their own or other suitable foliage. Not only is this a provision of economy, but it presents the flowers in their individual beauty as they are in nature, and one soon begins to appreciate them as flowers rather than as bunches. Flowers tied in bunches with cord or wire immediately suggest artificiality and usually are injured when so bound up.

THE color of flowers may serve utilitarian purposes as well as decorative, and should always be considered with reference to the color and character of the room. Delicately tinted pinks and blues require a bright, sunny room if they are to show to advantage. A quantity of brilliant red tends to reduce the size of a room, while blue similarly used apparently increases it and yellow brightens it. The color selected should give accent to the room,

GIVING THE INDIVIDUAL FLOWER A CHANCE

Japanese Iris (shown above), Lilies, and other flowers of distinctive habit should never be crowded together but appear to best advantage when separated and permitted to display their natural beauty of stem and leaf

WHERE FLOWERS AND CHINTZ GAILY ECHO THE GARDEN

"The sense of completeness and livableness that is afforded by flowers about the house is a unique thing that can be achieved in no other way. They seem to satisfy an unfilled need in even the most opulent surroundings"

and usually tints that contrast quite vividly with the color of the walls will do this: blue or red flowers in the cream colored room, yellow flowers in the blue room, or something really outstanding and definite. One does not want the room itself to be too vivid, and flowers serve just that purpose of affording relief from monotony. It is also interesting if the flowers in the wallpaper, or the draperies can appear in reality in the room, as this makes an interrelation that provides unity and coherence.

The color of the receptacle into which the flowers are to be placed is also conspicuous in the final result. It may be the same color as the flowers, or a contrasting color, or a neutral one like glass, hammered brass or silver. If the color cannot be selected with reference to the flower, it should be chosen with reference to the dominant tone of the room. Then if the color of the flower and the color of the room have been considered together, the color of the receptacle will be in harmony with both of them automatically. In selecting the bowl or vase, it is sometimes possible to consider the original habitat of the flower and select a type of holder that suggests the same origin. Tulips, for instance, are much identified with the Dutch, and Chrysanthemums with the Chinese.

A jar that is garish in color or ornate in design defeats its object of framing or holding the flower. The relative values of flower and holder must always be preserved; the receptacle must be subordinated to its contents. Tall, stately flowers require tall, stately vases of ample capacity and stability. One cannot contemplate a vase of tall, heavy flowers with serenity if it is tottering on a narrow, unstable base, or if it is not large enough to give the appearance of ample water supply for the sustenance of the flowers. In every house having a garden there should be vases and flower bowls of various sizes and shapes so that as the season unfolds them, the flowers will find suitable receptacles available for their disposal.

Flowers to preserve their artistic and decorative value must, of course, always be fresh. Nothing can be more unlovely and oppressive than a lot of wilted, dying flowers or withered greens. Hence it is fitting here to refer to the constantly increasing and unfortunate custom on the part of motorists to rob the roadside of twigs, branches, or clusters of flowers and foliage and bring them home where for the briefest period they may bring the out-of-doors into the rooms. This practice denudes the landscape of its dearest charm, and has no compensating effect in the home's adornment, where, wilted and withered, the flowers are only a source of reproach.

Suitable holders are indispensable for all the simpler types of arrangement where flowers are used sparingly with a view to displaying their true form; and a group of metal holders very serviceable for Lilies, Iris, Narcissus, flowering shrubs, etc., so much in vogue will be found on page 217 of the Dec., 1923, issue

BOOKS FOR THE HOME BUILDER

AMER PINDAR

SINCE "every garden means a home," inversely with equal justice, every home presumably presupposes a garden —certainly this is, or should be, true of every dwelling with a few spare feet of blessed mother earth about its toes. And those of us who are making homes for ourselves will be glad of this trio of recently published books with their helpful suggestion for indoors and out.

SMALL HOUSES (Doubleday, Page & Co.) by *Gilbert Murtagh.*

Outlining ways of making the little house of moderate price (i.e. from $5,000 to $20,000) livable and complete; with forty full-page plans and sketches including designs for garages, mantels, doorways, and other interior and exterior details.

DESIGN IN THE LITTE GARDEN (Atlantic Monthly Press) by *Fletcher Steele.*

"One more of those rungs of the tentative ladder to beauty in the small garden, on which it is hoped that many will set foot." Thus does Mrs. Francis King, in her foreword, delightfully epitomize this fourth of the Little Garden Series to appear under her editorship, a constructive and authoritative contribution by a Fellow of the American Society of Landscape Architects with much practical experience behind him.

THE BOOK OF GARDENS AND GARDENING (Doubleday, Page & Co.) edited by *Reginald T. Townsend.*

"Visiting gardens by proxy has ever been a delight to the real gardener who finds in it an opportunity to give vent to his own imaginative desires in interpreting the pictures." Says Mr. Barron in his illuminating preface. "The garden must ever be a personal thing, if it is to have reality. And so the garden lover may draw inspiration and also practical instruction from these pages both of which will be readapted to fit a personal and peculiar problem that is his own."

For Everybody's Bookshelf

A MANUAL OF CULTIVATED PLANTS (Macmillan Co.) by *L. H. Bailey.*

Doctor Bailey has done for plants of the garden what Asa Gray long ago did for plants of the field and we cannot be too grateful for the patience, expenditure of time, energy, and wisdom which have produced this manual of "plants grown in the United States and Canada for food, ornament, utility, and general interest, both in the open and under glass." It is an indispensable storehouse of enlightenment and a unique accomplishment—the first book of its kind not in America alone but in any country—by all means make room for it on your garden bookshelf!

In the Flower Garden

THE PRACTICAL BOOK OF OUTDOOR FLOWERS (J. B. Lippincott Co.) by *Richardson Wright.*

A new book by Mr. Wright is like meeting an old friend in holiday garb—he has an inimitable way of investing commonplaces with personality and sparkle. Gardening is an old art transformed by his wit and his zest into the freshest of pastimes. It is good reading too, and worth while from every viewpoint—you will learn without labor, profiting by the fulness of another's experience.

A GARDEN BLUEBOOK OF ANNUALS AND BIENNIALS (Doubleday, Page & Co.) by *Henry Stuart Ortloff.*

FLOWER GROWING, The Amateur's Book of the Garden Series (Doubleday, Page & Co.) Revised and adapted from the text of *I. M. Bennett's* "The Flower Garden" by *Leonard Barron.*

Lighter in physical bulk and in literary quality than Mr. Wright's volume listed above, these are a serviceable pair nevertheless for the man or the woman who does not care to dig so deeply either into pocket or the world of plants. Lots of us like to garden simply, to get our knowledge easily, and for the amateur who wants flowers and more flowers, plenty of bloom under average conditions these two books point a clear and expeditious way.

If You Are Keen About Roses

THE AMERICAN ROSE ANNUAL FOR 1924 (American Rose Society) edited by *J. Horace McFarland.*

Packed tight with information and inspiration, widely diversified in subject matter and treatment, the triumphal advance of the Rose during 1923 in Florida, Colorado, New Mexico, China, Australia, everywhere! Do you want to learn about the 138 "New Roses of All the World"? Or how an old household remedy is turned to new uses—"Bicarbonate of Soda Spray Effective"? These are only two of some half-hundred titles no lover of Roses can afford to miss!

ROSES FOR ALL AMERICAN CLIMATES (Macmillan Co.) by *George C. Thomas, Jr.*

Whether you live in California or the hotter inland zones or on the damp salt-swept Atlantic coast there are Roses which will flourish for you. The varying response of more than 500 varieties to divergent climatic and soil conditions in the different regions has been studied and is here recorded by Mr. Thomas in a unique presentation which lifts the whole matter of Rose growing out of the realm of the problematical into certain success.

ROSES AND HOW TO GROW THEM, The Amateur's Book of the Garden Series (Doubleday, Page & Co.), revised by *J. Horace McFarland.*

Especially written to meet the needs of the amateur who is growing Roses out of doors in his own garden and supplying up-to-the-minute data on all phases of Rose culture—the gist of a wide experience in concentrated form which will help the individual gardener to a maximum of achievement with a minimum of effort.

Concerning the Esthetics

MAN'S SPIRITUAL CONTACT WITH THE LANDSCAPE (Richard G. Badger) by *Stephen F. Hamblin.*

"The joy of a garden is a state of mind and a point of view toward life, rather than a question of a few plants and their arrangement. . . . The great danger to-day is that with our increased knowledge of the substance of things there will come a disregard of their spirit." Mr. Hamblin speaks with force and feeling and frequently with beauty born of a poetic insight into the fundamental kinship of all living things and the sustenance afforded the soul as well as the body of man by his contact with the green earth. The remarkable supplementary bibliography of nature verse and prose is a feast in itself and well worth leisurely digestion.

GARDEN GRACE (Macmillan Co.) by *Louise Driscoll.*

SONGS OUT OF DOORS (Charles Scribner's Sons) by *Henry Van Dyke.*

Gardens are like harps through which the seasons pass in music: gay tunes, grave tunes, color, scent, the sound of winds singing in the trees —you who love these things will joy to find them living again on the pages of Miss Driscoll's book and will follow them out beyond gardens into the freer spaces of which Dr. Van Dyke sings.

THE ART OF COLOUR (Doubleday, Page & Co.) by *Michel Jacobs.*

Colour is not just an isolated phenomenon or a topic for trivial afternoon discussion; it is an elemental essence in all forms of life, it has power over the spirit: it may bring healing, induce cheer or gloom. To-day's talk of "colour therapeutics" is not mere theorizing chatter—it is established fact. The chapters on Colour as Applied to Landscape Gardening and Colour as Applied to Cut Flowers, will appeal particularly to gardeners though there is no part of the volume that any one interested in colour would care to miss. Its half-hundred colour plates and illuminating comment on batik, stage lighting, costume design, landscape painting, etc., hold considerable stimulation for student, craftsman, and artist.

Of Recent Reprints

GARDENING BY MYSELF (Duffield & Co.) by *Anna B. Warner.*

THE GARDEN OF A COMMUTER'S WIFE (Macmillan Co.) by *Mabel Osgood Wright.*

NUT GROWING (Macmillan Co.) by *Robert T. Morris.*

To survive and make a second bow is something of an achievement considering the extraordinary stream of yearly printed matter, and any book may pat itself on the back, as it were, for accomplishing the feat. A reprint among garden books usually implies not only telling folks things that they still want to know about but telling them in a pleasanter way than common, and the reader will not be disappointed in this trio of recent reappearances.

ORCHIDS ALL MY OWN

M. G. HENRY

How Thirty Species of Orchids and Some Other Pretty Plants Make Themselves at Home in a 6 x 7 ft. Greenhouse in a City Yard

THE floor space of my tiny greenhouse is 6 x 7 ft., "too small to be of any practical use", so everybody tells me, and yet it has been, and still is, for me a perfect little Paradise.

My first Orchids were those a very kind friend brought me rom Mexico. There were about ten of them and they were vidently in a resting condition as the plants and roots were uite dry. I had not the least idea just what I ought to do to hem, so I opened the basket they were in and moistened them bit and thus they remained for a week or two while I endeavred to learn what should be done with them.

I managed to purchase some books on the subject, which is eally hard enough to do, as books on Orchids are scarce; and added to them as the years went by until I now have about hirty dealing exclusively with Orchids. Some of these I think nust be quite rare, such as "A Century of Orchidaceous Plants" ublished in England, 1849, also the "Second Century." Then n an auctioneer's shop one day I saw eleven volumes of "The Orchid Album" and acquired these.

THESE first Orchids of mine seemed the most beautiful things I had ever seen, and all had the typcal orchid fragrance. Even our ardy wildings have this odor, or at east most all of them do, and so do nost of the Orchids of Europe. So rue is this that, even in digging up heir roots with never a flower at ll, the scent is quite perceptible.

I was very shaky about first potting them up, although by then I ad read up quite a little. I had ll kinds of ingredients for every ort of soil mixture that I had read bout and of course many of the oor things perished! One day I ound an old gardener who had nce grown Orchids and he helped me greatly and gave me some sound advice. By this time all the weaklings had died and I had about six fairly healthy plants remaining. Some bloomed quite nicely after I had them about six or eight months.

PARADISE IN MINIATURE

The 6 x 7 ft. greenhouse which is, for Mrs. Henry, "a perfect little Paradise" and where some thirty species of Orchids flourish, may be seen above (left). It is tacked on the rear of the author's city home and is here shown with the shade let down part way to protect the plants within from over-much summer sun (see description below)

TWO "CLOSE-UPS" OF THE GLASSHOUSE

A nearer view (above) of the tiny conservatory and of an outdoor frame used as a starter for bulbs, etc. Winter's sting does not reach this sheltered "little tropical world" where Orchids bloom blithely in February (see below left)

I kept them in a sort of cold-frame all spring and summer but, of course, I knew they had to have a home and so the following summer the little greenhouse was tacked on the rear of my house. Although my home is in the very heart of the city and the four-story houses are all built against one another, it still gets a good share of sunshine and about as much as it needs.

The floor and foundation walls of the tiny 6 x 7 ft. greenhouse are of brick and the framework that holds the heavy plate glass is of steel. The lower ventilators and a large upper one give the ventilation so necessary. I also have a hook attached to the door so it can be held open a few inches and can neither blow shut nor open wider. A Japanese split bamboo porch shade attached to the outside of the roof and fixed on pulleys so it easily rolls up and down proves a success and makes the pleasantest kind of shade for a hot and sunshiny day.

Six 4-inch pipes connect with the house furnace and keep the little glasshouse cosily comfortable even when the thermometer drops to the single numbers. A thin layer of peat scattered on the floor helps maintain a moist atmosphere if sprinkled daily in hot weather.

Of course, in such a minute greenhouse it is necessary to watch the thermometer *very* carefully, as outdoor conditions affect it so rapidly. This is really the chief difficulty I have to contend with.

The bench is of galvanized wire, one-half inch heavy mesh; and where the Orchids stand a layer of moss is laid. On the other side it is covered with a

piece of burlap over which an inch of sand is spread. In the winter and on dark days the sand and moss are kept barely damp, and on bright sunny days and when plants need the extra moisture to help their growth, they are saturated morning and afternoon too, if necessary. The pots in which the Orchids are growing stand upon different-sized inverted pots so I can squirt the little seven-foot half-inch hose nicely without hitting any of the plants themselves.

A medium-sized barrel sawed in halves makes a good tank. In this I keep a few aquatic plants and sometimes a couple of small fish. This keeps a nice supply of pleasant, soft, and warm water always on hand with which to moisten the Orchids.

Responsive Orchids for the Amateur

FOR years I had about thirty Orchids all different and although, of course, I had some failures, still the successes have far exceeded my fondest anticipations and more than encouraged me.

Cypripediums are considered the easiest of all Orchids to grow and handle; at least C. insigne and its allied varieties. Certainly when a beginner starts in with Orchids, he (or she) usually purchases C. insigne, for in addition to being so easily grown, it is also the cheapest.

My first purchase was C. insigne Sanderae, and any one who has read "My Rock-Garden" page 279, by Reginald Farrar, will understand why. It is a beautiful canary yellow and has a snow-white tip to the dorsal sepal. My plant arrived from England in bloom with two perfect flowers and never a spot or blemish to mar their beauty. Messrs. Charlesworth of Hayward's Heath, always packed the splendid plants they sent in such a wonderful way one would never know they had been moved, and this after a 3,000 mile journey. There are very many other varieties of insigne, some with very large flowers with many colorings varying from greenish to reddish, and a number of the flowers are finely and wonderfully spotted with black. C. Charlesworthi is another particularly pretty species but is not such a good grower.

The leaves of some of the Cypripediums are very beautiful, light green in color, spotted and mottled with a deeper shade, but of these one has to be careful, as they too are a little more tender. It would be a pity, however, to deny oneself of one of the lovely albino varieties, such as C. Maudiae, or one of its parents, as they are very chaste and unusual looking and worth an extra effort.

My real favorites of all the Cypripediums are C. bellatulum and C. niveum; but, though they have bloomed for me a few times, I never seem to make them happy. I should like to try again, however, but am unable to secure a plant of either.

All my Cattleyas, Laelio-Cattleyas and my Brasso-Cattleyas did well and always gave me their gorgeous flowers at the expected time. The plain lavender-colored ones I never bothered much about, as the flowers of these are so readily available at any florist's. However, as they are the most easily grown of this group and moderate in price, they are well worth having.

I love the great fringy palest lavender flowers of Brasso-Cattleya Imperatrice de Russie. They are truly among the most beautiful of flowers.

And the glowing scarlet of L.-C. Charlesworthi is simply gorgeous when 12 blooms open on the same stalk (as mine did). It was a large plant and the head of flowers from a distance looked like a fiery red Hydrangea.

L.-C.Creusa is a pure yellow and L.-C. Hypatia is a deep peach.

The little Sophronitis grandiflora is a dear and, as it is so small, must be watched very closely.

The Sophro-Cattleyas are neat hybrids with brilliant flowers; Phalaenopsis Schilleriana (pale lavender) and P. amabilis (pure white) are most exquisitely beautiful and graceful things and hold their flowers a long time, although in the bud stage particularly a draft will sometimes drop them off.

Odontoglossum pulchellum, though not as large and showy as many others, holds its own in my estimation, because it grows and blooms so regularly, whereas all other Odontoglossums tried have failed me.

Platyclinis autumnalis is a very pretty and unusual little Orchid and so is P. glumacea, and they are not difficult to handle. Hartwegia purpurea and Angraecum distacheus are both pretty enough too.

Other Plants for the Little "Mixed" Greenhouse

THE list of Orchids is a long one, long enough to satisfy those who have twenty greenhouses and yet those who have only a single tiny one, as I have, can have their hearts' fill, too. And for those who love Orchids and want to know them intimately, the far greater pleasure is to grow them themselves and to see every bud develop from its beginning.

Not only do Orchids do nicely in a little house like this of mine but many of my other favorite flowers and plants thrive and grow apace. I have a little Osmanthus fragrans that has flourished for twelve or thirteen years. In the summer I sink the pot in the ground out of doors and it has never failed yet to give me a wealth of its deliciously sweet little cream-colored blossoms. Its foliage, a pretty shiny dark green, is an ornament at all seasons of the year.

Choisya ternata is another pretty shrub suitable for a pot that is extremely attractive when laden with its fragrant white flowers.

The Amaryllis hybrids are very showy subjects when in bloom and I remember a beautiful solid dark red one that had blooms one season eight inches across, and it had two stalks with four flowers on each! I hate the "finest mixture" of these bulbs that the bulb dealers sell. They nearly always turn out to be ugly striped varieties.

Then, too, the scented-leaved Pelargoniums of which I have one kind with pretty velvety red flowers and another with salmon pink do well stood on the sand in the cooler end of the bench.

Numerous Ferns, an edging of the smaller ones in front of the Orchids, are ornamental and help hold a moist atmosphere as well. A few Ferns of a 4-inch pot size are nice, as they help to fill in any vacant spots or hide ugly pots and can be shifted frequently wherever they are most useful.

One or two Palms are handy and always make good fillers and can be moved to the dwelling house if the greenhouse gets too crowded, as it often does.

One or two of the hardier Marantas add variety to the foliage as do also some Tradescantias, such as T. fuscata, etc.

Asparagus Sprengeri never fails and always is so light and feathery. I cannot do without a few. Podocarpus elongatus is a substantial tender shrub that has beautiful foliage of a similar lacy type.

Some professional florists would laugh at an attempt to grow so many plants that really should have separate houses of different temperatures to grow to their best. But after a good many years' experience (over eleven) I am satisfied it is well worth while to try a mixture.

There has been a break in the smooth running of my little tropical world as, of course, there should have been; and you will easily guess, it was the year of the terrible war. With my husband in France, I simply could not bear to keep a greenhouse going as I thought of human beings who needed warmth and comfort; and so I hurry over my tale of woe and will not dwell on the dreadful mortality of so many of my precious pets. Suffice it to say, few survived.

Much Joy at Small Cost

I HAVE said little about the care and treatment of Orchids because this is really just a brief sketch of what can be done by a greenhorn and the veriest amateur. But I do most thoroughly advise a little "studying up" before making any purchases and then getting only a few plants the first year.

All over Europe there are little mixed greenhouses and in them their owners manage to make a great variety of plants thrive including, of course, Orchids; but in America it is amazing how few know anything of the pleasure derived from the growing of these beautiful flowers.

A little greenhouse 6 x 7 ft. does not necessarily absorb much time, a few minutes several times a day and an hour or two several times a year at potting time is all that it requires. It means also to me that my greatest pleasure is right at my door ready to enjoy at any hour of the day I have a little extra time to spare. That is a great deal for I have five young children and could ill afford a luxury that kept me away from them.

JAPANESE GARDENS ON THE CALIFORINA COAST

DOROTHEA DEMERITTE DUNLEA

Creating a Sense of Peace and Long Establishment in Little Spaces Newly Won
The Message of an Old Civilization to a Gardening World Still Young

THERE is no class of gardens more strikingly picturesque, perhaps, and yet more difficult to reproduce in all their native beauty than the true Japanese gardens, which are, however, well worth the study and effort put into their creation. In southern California where the Japanese are employed almost exclusively as gardeners, one is able to obtain first-hand information on the Japanese art of gardening; and in and about Los Angeles there are many homes with charming Japanese gardens that are kept in their native beauty by some untiring Jap.

The Japanese idea is to reproduce a beautiful picture, a natural scene that is in exact proportion in size to the land which encloses it. It may be a mountainous scene with molded hills, with twisted and gnarled Pine Trees and evergreens; it may be a water scene, running streams and still pools bordered by Hydrangeas or gay Azaleas; or it may be a pigmy-sized garden of "Dried-Up-Water-Scenery," where lakes, cascades, and diminutive rivers are made of sand, pebbles, and smooth rocks to imitate the natural flow and ripple of water. Always irregular in design, they belong to the informal type of landscape gardening though they may appear of the formal type because they are so highly conventionalized and so many architectural features are combined with the natural scenes.

Flowers may or may not be a part of the planting scheme, depending upon whether they give a desired color effect. The Rose is considered too obvious in its beauty to have a place in such gardens, but other flowers are favored by the Japanese —lovely Lotus blossoms, the Iris of many varieties, the Peony, the Chrysanthemum, the Hydrangea, the Azalea, Camelia, and other flowering shrubs; and among trees, the Magnolia, and the flowering fruits. The vines most commonly used are the Morning-glory and the Wisteria, particularly in shades of purple.

PERHAPS the feature which strikes one first on entering a Japanese garden is the number of rocks and stones placed hither and thither. The use of stones is a symbolic thing with the Japanese, and a garden may contain the five principal stones or as many as a hundred or more which are all placed for a definite purpose. There is the Guardian Stone, the Stone of Contemplation, the Stone of Worship and so on, all very care-

A CALIFORNIA REPLICA
The resting shed, roofed fence, lantern, and abundant use of stones are all characteristic of the gardens of Japan and sometimes symbolic

ONE OF THE MANY CHARMING JAPANESE GARDENS FOUND IN THE LOS ANGELES REGION

"Always irregular in design, they belong to the informal type of landscape gardening though they may appear of the formal type because so highly conventionalized"

fully placed to give a correct effect, at least to the Oriental eye. They often serve too as stepping-stones or bridges, placed in their natural roughness or hewn in slabs.

A Japanese garden is never complete without one or more lanterns of which there are two general kinds, the standard and the legged, each with many variations in design and size. An example of a standard lantern with a mushroom shaped roof is shown in the picture on the preceding page, effectively surrounded by shrubbery which in this case is the showy Hydrangea with its blossoms of delicate pinks and blues. Another popular type is the hanging lantern made of metal, either bronze or iron, and sometimes supended from the eaves of a tea-house or even from the main house. Where outlined against a background of blossoming fruit trees such lanterns give an unusually charming effect.

The Japanese love the blossoming fruit trees, the Cherry, the Plum,

FLOWERING FRUIT TREES IN A JAPANESQUE GARDEN OF THE PACIFIC COAST

There are many lessons to be learned of our Oriental brothers with their exquisite perception of natural beauty; not least among them such use of fruit trees as lovely for the garden as many so-called "ornamentals"

and the Peach, which are the motif for many of their festivals, and which scatter their bloom with lavish abandon, softly carpeting the ground. In many a Japanese garden there are more lovely carpets still such as, for instance, the velvety Moss that grows in little humps and tufts of brilliant dark green in the Californian replicas of old Japan. This Moss is sometimes so planted as to produce the appearance of a brook coming down to join a pool—one of the extraordinarily skilful Oriental devices for creating the effect of a natural waterway by artificial substitutions. Water adds so much to any garden scene and is so essentially a part of many of the gardens on the eastern coast of the Pacific, that one should include it in any plan for the Japanesque garden. Wherever it is not possible to arrange for genuine pools and streams one can use these artificial substitutes to produce the much admired "Dried-Up-Water-Scenery" of the Orient.

VERY frequently an arbor or "resting shed" is placed in the water or at the water's edge. This inviting little place is frequently fashioned with just a heavy post to support the umbrella-shaped thatch roof, and has a broad seat around the post. (See illustration, page 341). Arbors and tea-houses are not the only places where one can be directly over the water, for many of the bridges partly cross a stream and then branch off to allow space to linger over the mirrors of cool water. The bridges that form a half curve are intended by their reflection in the water to represent the full moon, half bridge, half reflection.

There are many designs in fences and some of the more elaborate ones have a symbolic meaning worked into their ornamentation. The true Japanese fence is always roofed to keep off the rain. The fence pictured on page 341 has ornamental tiles for its roof and a gateway of bamboo placed in an upright design. The Pines rising above the fence in this illustration were placed no doubt to bring good fortune to the owner of this garden, for the Japanese consider the Pine an emblem of good luck. It may grow up tall and sturdy or it may be covered with lichen, trained and clipped to look storm- and wind-swept, or it may be trimmed in some fantastic shape. One can spend hours studying the general effects, the details, the loveliness of a Japanese garden and still more hours producing them, for the Japanese are clever artists and skilled gardeners and have a remarkable aptitude for making plants grow as they wish. Much of the shrubbery used in these gardens has been trained and pruned to have the look of age, and everything from the trailing blossoms of the Wisteria to the Lilies in the pools makes the Japanese garden a garden of reflection—a garden for reflection!

KEEPING CUT FLOWERS FRESH

H. F. GRINSTEAD

WE ALL like to have our choice cut blooms last as long as possible, and there are a few simple things which help to prolong their vitality and keep them from fading so fast as ordinarily. Cut your flowers early in the morning rather than later in the day and place immediately in clear water to every pint of which a teaspoonful of soda has been added. A lump of charcoal will also prevent the water souring quickly. Flower stalks of a woody nature should have an inch or so of the outer skin pared away, or the end split for a little way. A small amount of camphor in the water also tends to stimulate the absorption of water by the stems, which is the desirable thing.

The inexperienced will think that salt and hot water are the last things to use to revive faded flowers, but in fact nothing is better. When flowers are received in a faded or wilted condition, first cut off the ends of the stems a bit and at once put the stalks in a bowl or vase of water as hot as the hand can bear though not quite scalding. A little salt or camphor in the water will be of advantage. As soon as all the flowers are in the bowl stand it away in a dark cupboard for an hour, after which time they will be found wonderfully revived and can be put into vases of cool water.

Flowers with thick petals, like many of the bulbs, may be kept fresh for a considerable time by immersing completely in clear cool water. Thus, the flowers can be kept in vases during the day and revived by the cool bath at night. Blossoms with thin petals will be discolored by this process, however.

To keep flowers fresh for an extremely long time, prepare a box of sand an inch deep, and keep it moist with water. Stick the ends of the stems in the sand and exclude the air by turning an empty fruit jar or a bottle over each blossom or group of blossoms, taking care not to crowd or crush them. A small tuft of cotton with a few drops of formaldehyde on it under each jar will prevent mold. A shallow dish or a saucer will answer in place of the box, using one inverted jar to each dish. The flowers should be kept in a cool, shady place.

When preparing flowers for bouquets or to send away, put them in water for an hour after cutting and then wrap each stem end with a wad of cotton saturated in salt water, covering this with a piece of tinfoil or tissue paper. Another way to prevent loss of moisture from the stalk is to dip the cut end in melted paraffin or beeswax so that the ducts are closed. Wrap the flowers with tissue paper and pack tightly in the box; they should never be sprinkled, the only moisture in the box being that on the tufts of cotton around the stalks. When flower stems are again put in water after being treated with melted paraffin, cut off the tip end of the stem so that it can absorb water.

GROWING "MEAT" IN YOUR OWN GARDEN

WITH the broadening of all our conceptions nowadays the garden has kept pace—it is no longer merely a vegetable patch or even vegetables plus flowers. It has gathered into its wide embrace all the growing things about a home, and happily, the emphasis is swinging from purely ornamental planting to planting that is productive as well. What, for instance, could be lovelier than some of the fruit trees with their spring bloom, autumn harvest, and all-year beauty of shape? What more dignified than the Black Walnut, more interesting than the Pecan or the Hickory? People are beginning to realize the great, unexploited possibilities of the nut tree for both public plantings (see page 352, the use of Pecans along the Jefferson Davis Memorial Highway) and private grounds.

Indeed the possibilities are so fascinating that we cannot resist quoting from Doctor Morris's illuminating book on "Nut Growing" (reviewed on page 338) in the hope that home builders will be stimulated to establish at least one or two of these noble allies of man in their gardens: "Our next great meat supply stands all ready to be released. . . . Extensive studies have shown that nut trees of many kinds are capable of furnishing all of the proteins, oils, and vitamines belonging to the meat group of foods. . . . Each nut represents a prize package to the most concentrated food materials, and the increase in the popularity of the nut foods will incidentally add a health factor not to be despised.

The Big Four species of nut trees for expansive development in the United States during the present century will probably be the Pecan for the South, the Shagbark for the Northeast, the Black Walnut for the Pacific coast. All these four species will overlap to some extent in all four localities and great progress will be made with Almonds, Hazels, Chestnuts, and Pine nuts.

The trees may live and bear for more than a century, sometimes without apparent reduction of the fertility of the soil in which they grow. . . . Nut cultivation belongs to what has been called permanent agriculture. . . . The tree is a machine that is working night and day with less attention required from man than the annual plant requires. . . . Aside from such unpoetic questions as those of food supply, interest in trees belongs to a larger order than interest in potatoes, oats, and hay—the tree seems to be a standing object lesson of highly organized forces. . . .In nut trees we combine the Greek ideal of utility with beauty."

THE BEST EARLY APPLE FOR YOU

E. L. D. SEYMOUR

Seventeen Reliables for the Home Garden Selected for Their Delectability and Other Good Qualities—Apples from July Till Autumn, Sweet or Sour, Red or Yellow as You Will

EDITORS' NOTE: Even the littlest garden has room for an Apple tree, and why restrict our so-called "ornamental" plantings to such things as the Japanese Maple, exotic and often out of place, or the native Dogwoods, lovely as they are? The Apple, so long relegated to the lowlier companionship of orchards, has a trio of graces—a beauty of blossom and fruit, a comforting air of domesticity, a shapeliness that should endear it to every home-builder. And though you may have to depend upon markets for your winter supply of fruit, there is no reason in the world why you should be deprived of a delectable harvest of your own through midsummer months and the early fall. So look about you now, visit your neighbor's garden and the near-by orchards, sample and select the fruits that please you best and order trees well in advance of this autumn's planting time.

EARLY apples are doubly welcome because of the intrinsic excellence of many summer varieties and also because they begin the season's apple feast. Moreover the summer apple is largely a home garden proposition because of its lack of shipping qualities.

The lovers of really sweet apples seem fewer to-day than formerly, but for those who remain there are two choice early sweetings. BOUGH or SWEET BOUGH, ripening ordinarily late in July, has had attributed to it "all the good qualities which should recommend a fruit for general cultivation." Somewhat above medium size, of a clear, transparent yellow, tender and surpassingly sweet, it is a fitting reward for the impatient apple lover who "simply cannot wait" for October apples. The tree bears rather early in life, but, with care, lives to a ripe old age. Where unduly exposed to severe weather, it occasionally suffers winter injury, or succumbs to attacks of branch canker, but if we compare the early apple to the early spring flower, isn't it logical to give it a sheltered, kindly location? Some time in August, GOLDEN SWEET (the old Connecticut Orange Sweeting), ripens to continue the supply. It is smaller, somewhat more tender, but oh, so juicy, of such a melting sweetness, and as handsome a yellow fruit as you could wish.

SUPPOSE, though, that your inmost soul craves a good sour apple? Not the sort that puckers your mouth, but a genial, brisk acidity. Well, for you there are three to choose from—RED ASTRACHAN and TETOFSKY of Russian extraction, and SUMMER PEARMAIN, of earliest American fruit growing memories. The first is really a rich yellow but so generously splashed with crimson as to appear almost wholly red. It ripens from late July till September, being at first splendid for cooking, then, later in the season, excellent for dessert use. It is, however, very perishable both in storage and shipment. Tetofsky is smaller, with fewer red markings, of about the same season, a heavier cropper and remarkably hardy. Never really give up the hope of growing apples until Tetofsky succumbs to the rigors of your climate. This variety is often compared with Yellow Transparent, than which it is hardier and a little earlier, but by which it is somewhat excelled in size and quality. Summer Pearmain, described by American horticulturists as early as 1817, is one of the varieties that have encountered the nurseryman's prejudice, for it is a slow grower in the nursery and not a profitable commercial apple. But it is of the best quality, with a rich, mild subacid flavor suited to both table and culinary uses, and well adapted for amateur cultivation. Moreover its season continues for about two months, obviating the necessity of picking and storing the whole treeful of fruit at one time.

OF THE medium flavored or "subacid" early varieties I can recommend an even dozen of which I do not find a single unfavorable criticism unless it be that they are "slightly small and not sufficiently good keepers for commercial growth." But for home cultivation this objection becomes negligible.

BENONI, an attractive, small, red apple is a favorite of the middle and northern fruit sections, where it ripens through August and September. An excellent dessert apple, it yields fair to good crops biennially with much regularity. JEFFERIS combines with a juicy aromatic fruit that is eatable in September and keeps until January, a rather vigorous and disease resistant tree, of uneven ripening qualities. Another hardy vigorous tree gives us, in the LIVLAND RASPBERRY, a handsome tender-fleshed fruit, which has been called better than Yellow Transparent (later mentioned) for eating, though not for cooking nor in its earliness.

No matter how simple our wants nor how easily satisfied, the best of us have preferences. So with these apples, which, though they thrive in nearly all localities, occasionally exhibit desires for special conditions. For instance, CHENANGO, or CHENANGO STRAWBERRY, a sturdy, vigorous tree, bearing a clear yellow and red mild flavored fruit, gives the greatest returns when grown on a rather heavy sandy loam, and when pruned to an open top. This medium early apple is on the whole of very good quality and deservedly popular. EARLY HARVEST does not belie its name, being one of the first, if not the first, ripener of the season. Its uneven size and ripening and poor handling qualities are more than balanced by the excellent flavor, the early season, the strong growth, the early bearing and almost annual cropping. Give EARLY JOE a warm, gravelly soil and annual spraying to defeat its tendency to scab, and it will reward you while still a young tree with a very satisfying, small, dull red and russet apple, of tender, crisp, juicy flesh and fine flavor. This tree makes comparatively little growth, and is especially adapted to the restricted conditions of a backyard garden.

A hardy, productive variety and an almost annual cropper is EARLY STRAWBERRY. The small deep red apple supplies in August a fruit of delicious quality, not good for selling or handling, perhaps, but simply great for eating—whether in pie, pudding, or right off the tree. GARDEN ROYAL deserves more recognition than it has obtained. The tree is hardy, and a very reliable bearer from an early age. The deep yellow crimson striped fruit ripening about August, is tender, aro-

Good Early Apples for the Home Garden

Sweet Bough, late July, yellow, sweet

Golden Sweet, August, yellow, sweet

Red Astrachan, late July to September, yellow heavily splashed crimson, tart

Tetofsky, late July to September, greenish yellow with lighter red markings, tart

Summer Pearmain, late July to late September, yellow striped red, mildly tart

Benoni, August and early September, yellow striped red, medium flavored

Jefferis, September, pale yellow mottled with red, medium flavored

Livland Raspberry, August, waxen white striped light crimson, almost sweet

Chenango Strawberry, late August through September, clear yellow and red, medium flavored

Early Harvest, late July and August, yellow, medium flavored

Early Joe, August to September, pale yellow striped dark red, medium flavored

Early Strawberry, August, red, medium flavored and especially delicious

Garden Royal, August and September, yellow-crimson, pleasantly acid

Porter, September to November, yellow, medium flavored

Primate, August and September, light green or yellow, medium flavored

Summer Rose, July and August, very pale yellow splashed red, medium flavored

Yellow Transparent, late July and August, clear yellow, mildly tart

THE APPLE TREE HAS AN AIR OF COMFORTABLE DOMESTICITY

"There is more to trees than leaves, branches, bark, and roots. Through the ages man has attached to them a significance that is not the product of chance." Says Mr. Mark Daniels in his delightful essay on the spirit of trees ("Green Symbols," pages 364–368, August 1921 GARDEN MAGAZINE). "Appreciation of the individuality of trees is the key to the interpretation of what they express, and the interpretation of tree and floral expression is the soul of landscape architecture. It is not only through an association of ideas, but sometimes through a deeper, hidden sense that some people experience radically dissimilar emotions in the environment of different kinds of trees. Most of the nut and flowering fruit trees are in harmony with the garden." Home of Mr. Richard U. Sherman at Utica, N. Y.; Clement R. Newkirk, Architect; William Pitkin, Jr., Landscape Architect

matic, and richly flavored. PORTER, on the other hand, is one of the "old stand-bys," an apple that fifty years ago held the chief place in the Boston markets and that is still a splendid variety for the non-commercial orchard. Here we have a rather large yellow apple faintly tinged with red, that in preserving loses hardly anything of its natural beauty and palatability. It may be called a rather late "early variety" and several pickings are needed in order to get all the fruit at its best, which again is often an asset for the housekeeper.

FROM a strong, hardy, and resistant variety such as Spy or Baldwin, top worked with PRIMATE cions, you can get: first, an almost annual, usually heavy, crop; second a medium sized, unattractive yellow-green fruit; third, a flavor that is brisk, stimulating, and luscious in the extreme. It has all the pleasing traits of the Chenango, with an additional spicy acidity, which to some will be its chief delight.

We are often willing to sacrifice a possibility of unusual excellence in favor of less startling qualities that are fairly good but undoubtedly reliable and enduring. In this frame of mind plant SUMMER ROSE—a small apple, pale yellow, splashed and striped with red; of a flavor not rich, but eminently pleasing; a slow grower, of only medium productivity, but hardy, bearing at an early age, and a steady, reliable cropper. In July it is ready for cooking purposes, and by August has mellowed to the state when it can grace the fruit dish, to contrast with the rich warm red of Benoni or Livland Raspberry.

The principal rival of Early Harvest for the first laurels of the season is YELLOW TRANSPARENT, splendidly described by its name. It is often a little earlier than the above mentioned variety, and a heavier, more reliable bearer. But the quality, while very good is not quite perfection, and unless thinned the fruit is liable to be crowded and small. Coming from Russia it is inherently hardy, but in the West it occasionally shows touches of twig blight. Its delicate tenderness is reflected in its poor handling qualities, but, withal, it is well up among the first class varieties of the early apple season.

ROSES THAT DO BLOOM IN LATE SUMMER

J. HORACE McFARLAND

Editor of "The American Rose Annual," Author of "Roses and How to Grow Them" and other works

Repeating the Successes of June in August and October in his Breeze Hill Gardens

IT IS easy enough to have Roses in June, for any respectable Hybrid-tea or Hybrid-perpetual is full of the impulse to do its appointed work in the world in that month. Even though the Hybrid-teas are newly planted, they will most assuredly do business. But Roses in August means that these same Hybrid-teas, having made the grand effort in June, have been so handled as to keep on growing, and therefore will bring forth another crop, not in the favoring days of the year's best floral month, but under the fierce summer sun, which dries out the atmosphere and makes even the nights breathlessly hot.

I can crow a little—just a little—about the Breeze Hill Roses. To be sure, frequent rains have favored growth, but also heat far in excess of the average sometimes worked the other way. Yet in the early days of August, my eyes are gladdened each morning with a veritable new glory of Roses, giving me anywhere from a dozen to fifty buds, including often a score of varieties.

I DO not know that my part in this result has been especially influential. I do know that I have kept the ground cultivated and mulched, that the Roses have been fed three times since early June, and that a jealous watch has been kept over them against the ravages of mildew and black-spot, to say nothing of the aphis, the presence of which in any orderly rose garden is an evidence of laziness or carelessness, or both!

The mulch has been of tobacco stems, and that has done for the aphis. Three, and in some cases four, treatments have been given with the sulphur-arsenate prescription—9 to 1—fully described in the 1922 "American Rose Annual," and the result of the scientific investigation of our good worker, the pathologist, Dr. L. M. Massey, of Cornell. I have been particular to get real dust for this application, as produced by the Corona Chemical Division, of Milwaukee, and shot on to the plants easily and comfortably through their extraordinarily good dollar gun.

More than this, I have watched for black-spot, and whenever leaves showed its inception I have picked them off and burned them, keeping the ground clear of fallen leaves.

Even the Pernetianas are measurably free, though Wm. F. Dreer has about gone out of business, after not doing much anyway, and Mrs. S. K. Rindge, with its fine yellow-and-red flowers, is a little unhappy.

Now is the time when the thoughtful rose grower studies the varieties he has to greet him. There are three high points in having a rose garden which assumes to promote the anomalous "everblooming" habit by which we designate recurrent blooming. We can hardly avoid, save by carelessness, the June burst of bloom. We can hardly have, save by the greatest carefulness, the August average of bloom. If we do hold the August bloom and keep on with sanitation and care, we are assured of a great glory in September and October. These three high points, then, these of early summer, midsummer and fall, are the times when we can determine which sorts do best, at which times, and can either eliminate or increase, as experience dictates.

As a rose editor, enjoying rather than enduring a very extensive rose correspondence, I find that most people want to be told to do something rather than how to do it. This is the lazy way of getting experience by proxy, and it is as poor as it is lazy. My experience at Breeze Hill is at the command of any one who comes to see it, but it may not be the experience of my neighbor, who ought to be getting his own.

FOR instance, the 1922 midsummer survey in early August, under the conditions above noted, gave me some information of value. I discovered, for example, that among the red Roses it is hardly necessary to grow both Etoile de France and General MacArthur, both having about the same color, but MacArthur having the greater vigor. I must have Francis Scott Key for its superb and luscious open blooms, General-Superior Arnold Janssen for its lively light crimson, Red Radiance because it is completely dependable, George C. Waud because it is an all-season Rose of delightful quality, and of course Gruss an Teplitz and Ecarlate because it is a poor day when either of them does not glow with bright color.

Bloomfield Progress seems to be an overlooked gem among the red Roses. It is good in color, free from tendency toward blue, delightfully scented, and on a plant of vigor.

Rose Marie seems to me to nearly take the place of Miss Cynthia Forde as a deep pink flower. Lady Alice Stanley is the old reliable. Columbia does well, but not exceedingly well, and it is a shade lighter than Rose Marie. I can see no reason to retain Killarney when I need the room, and so far Premier has not justified its place. Supreme among light pinks is Mr. Scott's unintroduced Cornelia, which is a perfect pink Ophelia of wonderful endurance in flower and wonderful habit of bloom.

Mme. Butterfly is a good summer Rose, just as it was a good spring Rose. Radiance is, as usual, very good, while Lady Ursula provides more flowers of beautiful soft pink than any other Rose.

Gruss an Aachen, classed as a Polyantha, seems more of a Hybrid-tea, and it is a prize in summer, as it was in spring. Mrs. Aaron Ward and Duchess of Wellington both indulge in their usual vagaries of color, but they produce flowers. Janet has given exquisitely beautiful flowers of unique form and quality, and Golden Emblem has produced some clear yellow flowers which I rather suspect are as good as any that Souvenir de Claudius Pernet will ever produce in America, unless that interesting variety becomes so accustomed to us that it ceases to give us deformed buds of its lovely color.

Among all of the Roses tending toward the Pernetiana salmon, Mrs. A. R. Waddell stands at the top because of its color, quality, freedom and good plant growth. I think I can do without Mme. Leon Pain, at least in midsummer, but I shall have to retain La Tosca.

My old friend Chateau de Clos Vougeot is nearly out of business in midsummer. It is an aggravatingly important Rose which somebody ought to recast into better form with the same exquisite color and fragrance.

The Hybrid-perpetuals did me proud that year by repeating, which shows that it was a favorable rose season. More important, perhaps, is the way in which F. J. Grootendorst keeps on with its continuous production of clusters of red carnations, borne on the ends of good shoots which bear Rugosa leaves. It is inimitable as a garden Rose.

FLOWERS WERE USED IN LITTLE RIBBON BORDERS

Writers of these early times inform us of the great amount of interest taken in gardening as long ago as 1525, when a Botanic Garden was founded in Padua. The chief idea was to express "the spirit of all landscape" in a limited space as evidenced in the picture "Children Gardeners" (see above). This is a Gobelin Tapestry from a cartoon by an unknown French artist, which is hanging in the Royal Gallery of the Uffizzi Palace, Florence

FLOWERS THAT FLOURISHED IN THE GARDENS OF OLD ITALY

HERBERT W. FAULKNER

Narcissus and Pinks, Peonies and Fritillary, Roses, Acacia, and Other Bright Bloom Shone against the Sombre Greenery of Italian Gardens Nearly Four Hundred Years Ago

IT IS a prevalent notion that the splendid old gardens of Italy were planned and planted to produce an effect of beauty through combinations of sculptured marble and verdant foliage, and that flowers were absent, or quite subordinated in their use. The reasons given for this belief were: (1) that there exists to-day no trace of flower-planting in the ancient and neglected gardens, (2) that the spirit of Italian garden composition did not call for flowers to enhance the effect aimed at, and (3) that the climate in Italy in the summertime is so dry that flowers will not flourish.

Personally I could scarcely reconcile this view of the art of the Italian gardener with the art of Italian sculpture, poetry, and painting, all of which are, so to speak, embellished and garlanded with flowers. And to decide the matter, a tour of the gardens near Florence was undertaken, and several libraries were visited in search of records of flowers that bloomed and faded many centuries ago.

These visits to venerable gardens, though delightful episodes, were of less service in throwing light on the question than was expected, for the reason that, since their days of glory, decay and rank growth have obliterated most traces of floral borders, and I had to resort to old pictures, plans, and dusty books for enlightenment.

The paintings, views painted while the gardens were young, give testimony of the presence of flowers in discreet abundance. Usually some event of sacred history is depicted as occurring in a formal garden, where flowers bloom profusely among the grass of a lawn set in classic surroundings. Others show narrow borders planted with Lilies and Roses. Fra Angelico often painted his sweet angels in surroundings like these, and his "Massacre of the Innocents" and "The Prayer in the Garden" show flower-borders. Botticelli's "Madonna" in the Louvre is painted against a hedge of Roses in bloom, Pinturicchio shows us "Susanna" in an enclosure of Roses trained on golden reeds, and Nicolo Alunno (1430–1502) has left a picture of "Christ in the Garden of Gethsemane" in the Long Gallery of the Louvre, where we see a formal garden with flowers in the foreground, and a surrounding hedge of flowering shrubs about a group of square beds, each planted in rows.

Some old engravings give contemporary garden plans. One of these from the Villa Pamphilia Doria dated 1644 shows us a portion marked "Parterres"; another, of the Bobili Gardens, planned by Amanti in 1568, includes a sumptuous "Island of Flowers"; the Villa Papa Gulio (1550) has flowerbeds edged with Box; and an old plate of the Villa Medici at Rome shows a group of beds marked "giardini di fiore e agrumi."

Among contemporary descriptions occurs the following written by Boccaccio about 1353, in his "Third Day" of the Decameron, which is supposed to be a word-picture of the Villa Palmirer, as it appears at that date:

> All around and through the midst of the garden were wide, straight walks covered with vines which seemed to promise a plenteous vintage, and, being all in bloom, they gave so delicious a scent, joined with other flowers then growing in the garden, that they thought themselves in the spiceries of the East. The

sides of these walks were enclosed with white and red Roses and with Jasmine in such a manner as to exclude the morning and even the midday sun. What variety of plants, and how elegantly disposed, it would be needless to mention, since there was nothing belonging to our climate which was not there in great abundance.

From another source I learned that a Botanic Garden was founded at Padua as early as 1525, and another at Genoa in 1559, proving that a taste for the study of plants and flowers existed at that early date.

AFTER much searching, I found in the Marcian Library in Venice an old volume entitled "Di Florum Cultura" by Giovanni Battisto Ferrari, written originally in Latin, translated into Italian and published in 1638; it proved to be a treasure-trove. The author, believing in the value and novelty of his work, has padded it with an elaborate introduction to the reader, introduced much high-flown diction, and flowery phrases, and seems to have lingered to enjoy their fragrance. Then he has embellished his tome with expensive copperplate engravings, one showing what a French hoe looks like and another exhibits a drain-tile entwined with floating ribbons. I found myself lingering also over these superfluous matters and derived amusement from the advice to "sift the earth in the Ides of February," and to lay out our garden according to a plan "drawn with all the skill of a geometrician." Here several plates were introduced to show the complicated patterns of the flowerbeds then the fashion. Then he says that "colors of the flowers must be selected to harmonize at all seasons, and beds must be just wide enough to allow of gathering the flowers or of pulling the weeds," and he sagely remarks that the flowers do not like the shade of trees any more than Diogenes liked to have Alexander interfere with his sunshine.

The portion of the book which had most bearing on the question I had come to investigate was the chapter describing the flowering plants in common use at the time the book was published, 1638, for the best and most famous gardens of Italy were planned and planted either shortly before or shortly after that date, consequently the flowers and plants described by Ferrari must have been the stock available to the gardeners on the princely estates. The list is as follows: Narcissus in many varieties, Crown-imperial, Colchicum, Tulip, Fritillary, Iris, Lilies in variety, "Orchi," Ornithogalum, Hyacinth, Cyclamen, Anemone, "Violaceo fucus," Ranunculus, Asphodel, Peonies, Lilies-of-the-valley, "Iuca indiana," "Leonide of Constantinople," Trumpet-vine, "Tracilio americano" or Cardinal-plant, Pinks, Jasmine, Roses, various flowering shrubs such as Acacia, Elder, and Rose-of-Siena, which, in the engraving much resembles our Rose-of-Sharon. The list includes about thirty different varieties of flowering plants.

PARAVERVNT PASCA
NETIMEA QVIA TECV SVM EGO DEVS CONFORTAVI TE. ISAIE. XXXXI.
APPARVIT AT ILLI ANGELVS DECEL CONFORTANS EVM LVCE. XXII. C.

OLD ITALIAN GARDEN A PLACE OF PRAYER

Nature was translated, "made stilted and stiff, to conform to the manners and customs of society; flowers were confined to a small section of their own, and the garden became a sort of sampler with bits of embroidery," as shown in this reproduction of Fra Angelico's "Prayer In the Garden" (Gallery of Art Ancient and Modern, Florence, Italy)

Now Ferrari, in writing his book, purposed to explain a *new* method for culture of these flowers, thereby implying that they had been cultivated by some other method for a considerable time previously, and we might reasonably believe that they represented the stock in use in his epoch, a period at which many of the famous gardens of Italy were newly planted, or soon to be planned. A list of gardens, with the dates of their foundation, shows that the most active time for the garden architects was from 1550 to 1650. Ferrari closes his chapter on the flowers by eloquently apostrophising certain gardens thus: "O! Garden of the Farnese who loveth to nourish your blue Lilies. O! Garden of the Aldibrandini at the Quirinal benignly splendid with your stars," and ends his book with a chapter headed "The Works of Nature Greater than Those of Art."

THE evidence seemed sufficient to prove the use of flower in the old gardens, and, in addition to this, I was able to deny the assertion that the climate of Italy is too dry to support the life of flowers, for I visited the Villa Vicobello, near Siena, during a period of unusual drought, in spite of which I was able to count eighteen different varieties of flowers in bloom. Having established the status of the flowers to my own satisfaction, it seemed proper at the same time to discover to what extent they were used, and what part they played in the garden composition.

All Italian art is characterized by a preference for form. This it was which gave the sonnet its prominent place in poetry, which made the classic style in architecture, and which endeared the formal garden to the Italians. The art of gardening was an art of symbolism, and the different elements employed in a composition were meant to represent corresponding elements in undisciplined nature.

Old writers tell us that a garden should contain a lawn with a fountain in the middle of it, an arbor of Grape vines, some parterres of flowers, a grotto, an orchard, a little grove, and a vegetable garden. If possible, there should also be a pond with some fish and swans, and a collection of birds and animals. The clear intent of this grouping was to express, within the restricted space of the garden, the spirit of all landscape, the prairie, the forest, the cavern, the sea, and the wilderness. It was a translation of nature, made stilted and stiff, to conform to the manners and customs of society. The garden became a sort of sampler, where available material was given a place, and the parterres, especially, were like bits of embroidery of elaborate patterns, occupying a restricted space in the scheme. A few ribbon borders sometimes edged the lawns, but, as a rule, the flowers were confined to the small section of their own, where the poets and dandies might make use of them for their florid phrases and classic metaphors.

WHAT TO DO IN THE VEGETABLE GARDEN

ADOLPH KRUHM and LEWIS E. THEISS

Planting Now for a Full Supply of Late Vegetables for Autumn and Winter Use

JULY brings nearly ideal conditions for making a garden, much more so in many respects than the earlier spring months. The soil is warm and mellow causing the seeds to germinate very rapidly. If very dry, give it a good soaking the day before digging, turning the moist soil down underneath the seeds, where it will do the work as it rises to the surface.

Prepare a seed-bed in a shaded sheltered position. Deep seed-beds catch and retain moisture much better than shallow ones, and seed-beds packed with humus do best of all. It is especially necessary, therefore, to make sure seed-beds are as deep and rich as possible when planting crops that must grow during the dry parts of the season. Because of dry conditions commonly prevalent at this season it is advisable to cover all seeds two to three times the depth that they are covered ordinarily. Quick and even germination is encouraged by pressing the soil in firm contact with the seeds. A quick way is to place a board over the row after sowing and walk over it. In the case of Beet seeds, no board is needed, but just walk right over the rows to push the soil firmly in contact with the spongy fruits holding the seeds.

Celery and Corn

WHEN the early Peas are done bearing, mow off the vines, fit the soil again, and plant Celery where the vines were. The early Potato ground can be utilized in the same way for other Celery plantings, or for other fall vegetables. This double working of the ground, and the double enrichment, should bring excellent second crops.

Bear in mind that in many sections July finds the gardener less than 90 days from the average frost date. Consequently quick maturing varieties must be selected. The choice is greater than the average gardener suspects. Golden Bantam Sweet Corn may be sown up to the middle of July, for instance, and bear well-filled ears in sections where frost does not threaten until about September 25th.

Beans and Carrots

ALL varieties of Bush Beans, excepting the Limas, will make a crop. Where this message reaches the reader in late June, he may still hope to raise a crop of Fordhook Bush Limas if the seeds are sown a few days before July comes. In planting Limas push seeds into the soil eye down or else the seedlings will break their necks trying to bring up from below any soil caught in the seedling leaves. Sow String Beans every ten days until August first. Carrots can be sown the first and fifteenth for late season use. Did you ever try Japanese Carrots? There is one with a red flesh, like a deep-colored Beet, that is most appetizing to look at. It is called the Sapporo. Incidentally, the foliage of the Japanese Carrot is even more ornamental than that of our ordinary varieties.

Lettuce and Endive

START Endive for fall salads in the seed bed and transplant to its position in August. Another fine salad crop that revels in the cool fall weather is Lettuce. Two varieties especially desirable for fall planting are Mignonette and Crisp-As-Ice. Both have a rather forbidding looking bronze-green exterior, but their looks surely belie the quality of the golden heart within. Lettuce will not stand in head long, but soon shoots up a flower-stalk and becomes worthless. It is generally thought to be due to heat. However, it is now known to be caused by too many hours of daylight in summer. Cut off the light and you can make your Lettuce stand in the head indefinitely. Why not put a light-proof cover on your coldframe, fill the frame with Lettuce, and allow the plants to have light only eight or ten hours a day? They will remain in head then and the heads will continue to grow as it is physically impossible for the plants to bloom with so little light.

Vegetables that Can Still Be Planted with Success

Lettuce	Cauliflower
Spinach	Brussels-sprouts
Cucumbers	Kohlrabi
Corn	Kale
Celery	Rutabaga
Cabbage	Turnips

Beans (String and Lima)

The Whole Cabbage Family

THE entire Cabbage group, embracing Brussels-sprouts, Cauliflower, Kohlrabi, Kale, Cabbage and Rutabaga, find ideal conditions from now on for the best development—"The twelfth of July, wet or dry," being the orthodox date for Turnips. Did you ever try "Cowhorn" Turnips? Commonly these are used to plow under in the field, and the idea has arisen that they are fit only for cattle or soil enrichment. Try a few and see how really delicious they are! With the exception of Cauliflower, of which a very early maturing variety should be selected, all varieties in all classes will reach full size and stand considerable frost, before they need be harvested and stored.

Cauliflowers frequently refuse to head, and lack of uninterrupted moisture is a main cause. So be particular to cultivate them often at this time. A heavy mulch is even better, if you can manage it. Inferior seed is another cause of Cauliflower failure. Make a note of that and buy the best you can get for next year.

Sow Chinese Cabbage, either Pe-tsai or Wong Bok, in July. Sown earlier, it goes to seed. It is delicious sliced and eaten raw, or boiled, and it can be used in krout. Nothing equals it in cole-slaw. The cabbage butterflies have been largely fooled by it. They often pass it by, to lay their eggs in the real Cabbages. Of course, Chinese Cabbage is not really a Cabbage, but a Mustard so the butterflies are wiser than we think.

Spinach and Cucumbers

OF COURSE, Spinach should be thought of as a principal fall crop. The Early White Spine strains of Cucumber will produce fine crops of pickles by the middle of September from seeds sown now. Guard the young seedling plants against the striped cucumber beetle by dusting them with paris green, slug shot, or any one of the stomach poisons.

Using Early Cabbages to Advantage

DO YOUR early Cabbages split their heads in July? It is because growth is checked and then suddenly resumed. Try loosening the roots a bit and bending the stalks down. That often prevents the splitting by preventing a resumption of rapid growth. If your summer Cabbages split anyway, use them for sour-krout. This is not commonly done, but is really advantageous to the housewife. When the krout has sufficiently fermented, it must be cooked and canned. Warm weather induces such a development of acid in the krout, that the acid fairly consumes the cabbage. Hence krout is ordinarily made in the fall when it is cool. The krout then remains all winter in the crock in which it is made. This is wasteful, for each time a mess is taken from the crock the top must be thrown away. Cook it all at once and can it, when the windows can be open, in summer. Heating a can of this cooked krout will not smell up the house as the cooking of krout made in the ordinary way does.

Beating the Squash Bug at His Own Game

A SUGGESTION from an old Scotch gardener on how to beat the squash bug: (of course if you can locate the borer and cut him out before he gets down to the roots and causes utter ruin, you may be able to save the plant). As soon as the vines start to run the gardener "layers" them, that is he throws soil over several of the joints. Roots start at these points and even if the borer does his wrecking at the main roots there are plenty of other roots along the vine to develop. This method of layering has never interfered with the quality or the size of the squash.

Gardens That Painters Delight In

At Stockbridge, Massachusetts

Captions by Ruth McFarland Furniss & Photographs by Edith Hastings Tracy

GARDEN OF MRS. WILLIAM H. CLARKE

Bulrushes fringe the rocks that border the rambling little lake. Forget-me-nots and Myrtle carpet the edges of the grass. Japanese and Siberian Iris approach the water front, and Peonies, Delphinium, and Phlox make notes of color against glossy-leaved bushes of Mountain Laurel. An occasional Cedar tree strikes an exclamation point against the foliage background

GARDEN OF MISS MARIE KOBBÉ, THE ARTIST

Miss Kobbé's hillside garden is bordered by Roses, varied by occasional clumps of clipped Barberry bushes. English Ivy edges the wide borders in which Foxgloves, Peonies, Larkspur and Phlox all have their own niches. A Grapevine-covered arbor shelters the bird-bath and Roses scramble over the central arch and over the white picket fence which encircles the garden

GARDEN OF MISS LYDIA FIELD EMMET, PORTRAIT PAINTER

Miss Emmet's garden is triply enclosed: first by an encircling wall of clipped Pine, then Spruce, then Barberry. Against this background of green, the Hollyhocks throw up their stately spires. Foxgloves, Sweet William, and Iris vie with Oriental Poppies and Evening Primroses for their place in this charming garden, and a Lombardy Poplar stands slimly, challengingly erect, while a white Birch gleams in the distance

The National Garden Association

Formed to promote the annual observance of National Garden Week

LEONARD BARRON, F.R.H.S., President

Honorary Vice-Presidents: J. HORACE MCFARLAND, MRS. FRANCIS KING, MRS. RUSSELL TYSON, MRS. THOMAS G. WINTER, MRS. SAMUEL SLOAN, MR. FREDERICK NEWBOLD, MR. ROBERT PYLE, MRS. JOHN D. SHERMAN.

Coöperating Societies: NATIONAL PLANT, FLOWER AND FRUIT GUILD; AMERICAN DAHLIA SOCIETY; AMERICAN IRIS SOCIETY; ONTARIO HORTICULTURAL ASSOCIATION; AMERICAN FORESTRY ASSOCIATION; WOMEN'S NATIONAL FARM AND GARDEN ASSOCIATION; WILD FLOWER PRESERVATION SOCIETY; NATIONAL HORTICULTURAL SOCIETY; THE AGASSIZ ASSOCIATION; THE SCHOOL NATURE LEAGUE; SOCIETY OF LITTLE GARDENS.

THE BILLBOARD CAMPAIGN, with which The National Garden Association has been so closely identified, has reached the point where its opponents have realized its nation-wide character and are endeavoring to combat it—minimizing its results and frequently failing to recognize its real purpose. So just at this point, it seems necessary as well as proper to state exactly what this campaign is, by whom conducted, and how and to what end.

The aim of the National Committee is clearly defined in its title, "THE NATIONAL COMMITTEE FOR RESTRICTION OF OUTDOOR ADVERTISING." It does not say "abolish," but "*restrict*" and all efforts toward such restriction are directed in a thoroughly fair and unbiased manner as indicated by the first paragraph of the leaflet sent out by the Committee:

WHAT WE STAND FOR

The confinement of all display advertising to commercial locations where it will not injure scenery, civic beauty, or residential values. This means no display advertising along rural highways or in residential districts.

THE SPIRIT OF OUR CAMPAIGN
DIGNIFIED—COURTEOUS—KINDLY

We believe that most of the national advertisers, when they realize how this form of advertising is ruining the beauty of our country and arousing the resentment of the people, will gladly coöperate with us.

COÖPERATING ORGANIZATIONS

At present there are 23 organizations coöperating, of which 9 are national bodies:

American Civic Association
National Highway Association
General Federation of Women's Clubs
National Society of Women Painters & Sculptors
Garden Club of America
American Federation of Arts
National Academy of Design
American Scenic and Historic Preservation Society
The National Garden Association

In response to the campaign, 17 national advertisers have, thus far, agreed to this restriction of their advertising to commercial locations. Some have not qualified their compliance in any way, merely saying, "We agree! Billboards must go!" And this not because of the use of this form of advertising but of its *misuse*. This is the result of the courteous, fair-minded attitude of the Committee.

ANOTHER significant sidelight on the progress of the anti-billboard movement is revealed in the following unsolicited letter recently received by the National Garden Association from Mr. R. H. Scott, President of The Reo Motor Car Company:

We have noticed the reference to billboards in THE GARDEN MAGAZINE for May and are pleased to note that several corporations have decided to discontinue the use of billboards which have been a nuisance for many years.

This Company has never been an offender and the only billboards used for advertising our product have been put in use by individuals and this we discourage as far as possible.

You may add the name of the Reo Motor Car Company to your list.

We wish to emphasize the fact that in none of the various campaigns being carried on is there a suggestion of total abolishment. The restriction applies to those locations where signs do not belong and where by their very presence, they *defeat the purpose of the advertiser!*

So much good has been accomplished, so many disfiguring, dangerous signs removed, that we believe that it is only a question of a short time until each state will make such restrictive work part of the job of their Highway Commissioners.

Cherishing our Native Flowers

THE activities of the Wild Flower Preservation Society have brought such definite results that the National Garden Association hopes to see a branch established in every town. From now until late fall, all the outdoor trails will be filled with tourists and picnickers who would be glad—did they but know of the need—to conserve these fast-disappearing wild flowers. Instead, they fill their automobiles with them! The Chicago Chapter of this society has issued a most attractive card that carries this need of conservation in the form of a promise. It would be well if every picnicker and automobilist could have one of these cards to study. "That the world may be more beautiful for *all*, I promise not to pluck flowers nor destroy plants in woods and fields where they are unprotected, except such as flourish abundantly or are in the nature of weeds. All my influence shall be used to protect wild flowers from destruction by others." The National Society will aid any town to form a branch and will gladly send to any one their booklets and helpful material on request

"The fate of the wild flowers lies with the motorists," says a leaflet issued by the Society for the Preservation of Native New England Plants with headquarters at Horticultural Hall, Boston, Mass. Much information is available and a number of bulletins may be secured from this society also.

Pecan Trees Make Beautiful Mile-posts

THE care of trees and shrubs along highways is a matter deserving of general interest and active community effort. While at this time, garden clubs and improvement associations and men's and women's clubs are striving to make our highways attractive, with but a few exceptions there is not as yet that coördination with Roadway Commissions that the importance of this subject deserves.

"Highway Departments should have authority," says a most helpful booklet on Roadside Planting, "to compel conformity to standards of roadside planting established by them." Precedent for such action by highway authorities is to be found in Washington, Pennsylvania, Massachusetts, and Michigan. In Washington, nearly 2,000,000 trees will be required to complete the planting along its highways, while along the roads of Massachusetts, nearly 50,000 have already been planted. Pecan trees have been planted as mile-posts along the beautiful Jefferson Davis Memorial Highway from Virginia to Mississippi. This book "Roadside Planting" may be had on request to the National Garden Association.

The American Forestry Association is working earnestly and painstakingly to aid in forest conservation and in reforestation. Many State Forest Commissioners are issuing booklets and pamphlets of great value to everyone.

All of the above-mentioned leaflets are free, as are the following:

How to Conduct a Clean-up Campaign (most helpful); Constitution, By-laws and Program for Garden Clubs; Flower Shows; Permanent Fruit and Vegetable Gardens; Bird Houses and How to Build Them; Weeds and How to Control Them; Insects Injurious to Deciduous Shade Trees; How to Attract the Birds; Diseases and Insects of Garden Vegetables; In Penn's Woods (For residents of Pennsylvania)

Send all requests for booklets to The National Garden Association, Garden City, New York.

GARDEN BELLS

Garden bells—
Hear them ring
Summer songs,
Chimes of spring,
Lily-of-the-Valley bells,
Campanulas,
Blue Hare Bells.
Easter Lilies,
Lenten bells.
June-time choir
Antiphonals,
Coral Bells
and
Bells of Heather,
Chimes of color,
Rhymes of weather.
Lemon Lilies
For one day
Sing their song—
Then fade away.

Here are lovely
Fritillaries,
Yellow bells,
Like gay canaries.
Tinkling bells,
Anemone.
Tall racemed
Gladioli.
Canterbury's
Cathedral bells
Lyric songs
Of Asphodels.
Forsythias
And Columbine,
Magnolias
and
Sprigs of Thyme.
And the Mallows,
Rose and gold,
Singing chanties
Free and bold.
Foxglove bells,
Sweet troubadors.

Four o'Clocks,
Ring out the hours.
While Violas
White and purple
Play a lovely
Obligato
To the ringing,
To the singing,
Of the bells—
The garden bells—
Ringing to the orchestration,
Of the rain drops and the sunshine;
Singing to the lamentation
Of the wind-horns in the night-time.
Sweetest prophecies foretelling
For departed seasons knelling,
Living, glowing garden bells.
Fading, dying garden bells.

ETHEL ROMIG FULLER

CROWN IMPERIAL

"In no garden, no matter how modern, could the Fritillaries ever look to me aught but antique and classic." Writes Mrs. Earle (page 447, "Old Time Gardens"). "They are as essentially of the past, even to the careless eye, as an antique lamp or brazier. Quaint, too, is the fabric of their coats, like some old silken stuff of paduasoy or sarsenet." The Crown Fritillary (Fritillaria imperialis) shown above is a native of Asia Minor

SOME PLANT GALLS AND HOW THEY COME

E. P. FELT
New York State Entomologist

An Obscure Group of Insects Causing Plant Warts that are Frequently Laid to Attacks of Fungus

CURIOSITY is always excited by the unusual, and the appearance of an abnormal growth upon some plant in the garden never fails to arrest interest and occasionally may cause apprehension for the plant's welfare. In some instances such a growth may seriously mar the appearance of the affected plant or, in extreme cases, even bring about the death of large trees. Many of these unusual appearances on plants are produced by insects and are known as "galls." The gall is the plant's response to a certain stimulus produced by the puncture of the insect and is always the same for the given insect on that particular species of plant.

A somewhat common gall is the delicate, creamy-white, pink-spotted, wooly, globular growth about an inch in diameter on Oak twigs. This appears to be a modification of a series of buds which normally develop leaves and branches and in this case have been compelled to provide suitable shelter for hundreds of minute, blackish gall wasps.

The oak bullet galls have such a characteristic appearance that descriptions are unnecessary. There are a number of different kinds occurring upon various Oaks, and although they are frequently abundant, they do not appear to be particularly injurious.

An insect related to this produces the unsightly gouty oak twig gall which may be one to one and a quarter inches in diameter. They occur upon the smaller branches and occasionally are so numerous as to form irregular masses several inches long. This gall wasp is very local, its attack frequently being confined to one or two trees; and in case of severe infestations, branches, good sized limbs, and even considerable proportions of large trees may succumb to the gradual weakening produced by the serious interruption in the circulation of the sap caused by these abnormal developments.

Another very similiar gall known as the horned oak gall occurs rather commonly upon certain Southern Oaks. The gall itself is more nearly globular. It has a diameter of an inch or more and is easily recognized by the tapering, horn-like projections nearly half an inch long protruding from the surface of the deformity. This gall as well as the preceding is sometimes so exceedingly abundant as to affect the vitality of branches or kill considerable parts of trees.

Occasionally one may find peculiar kernel-like growths some quarter of an inch long and issuing in closely crowded masses from longitudinal cracks in the bark of the smaller Oak twigs. Infestations by this gall wasp are occasionally very abundant and are noteworthy because the galls excrete in early summer a sweetish matter very attractive to bees and flies, consequently one's attention to a badly infested tree may be drawn by the swarms of insects hovering over or flying around the affected branches in much the same way as they would if an attractive plant were in full blossom.

These twig making gall wasps are unusually interesting since they present a peculiar

AN UNDESIRABLE TRIO

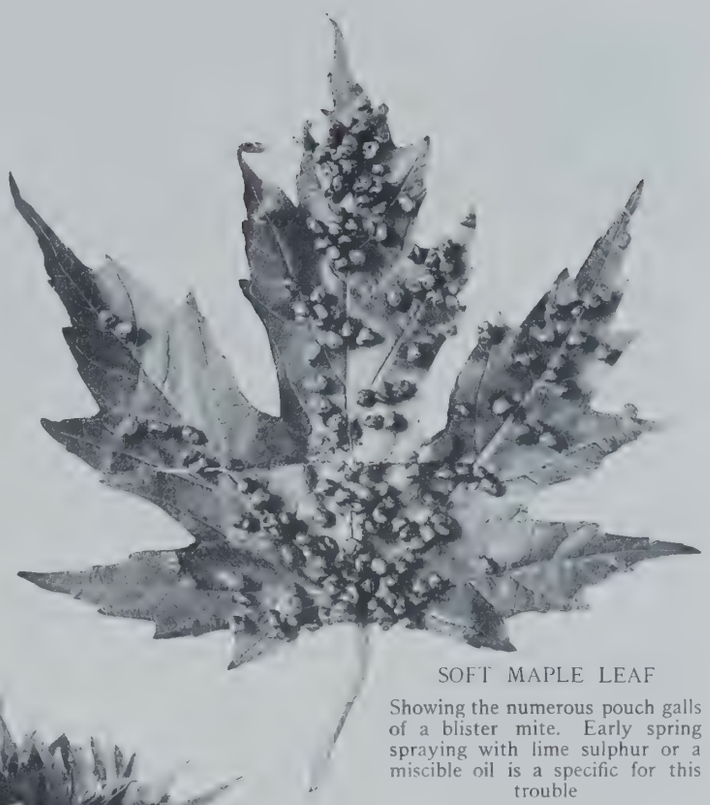
The badly deformed twigs shown above are afflicted with gouty oak galls and, being unable to develop normally, such unfortunates usually die within a few years. Another peculiar growth occuring upon Oak twigs is the banded oak bullet gall (left). The Cypress sometimes suffers from galls that cause the branchlets to swell enormously (right) making healthy growth beyond the portions so attacked impossible

phenomenon known as alternation of generations. That is, succeeding generations are unlike, though grandparents and grandchildren are identical. There is an equally striking difference between the galls inhabited by the two different generations. It is possible that practical methods of controlling these injurious species could be developed if the complete life-history were known. Unfortunately, we are not certain as to the gall produced by the alternate generations of these gall wasps and consequently can suggest nothing particularly effective in the way of control. There is a possibility that spraying trees badly infested by these galls with molasses and water, using six pounds of molasses to fifty gallons of water, would trap many of the insects as they attempt to issue from the galls, provided the application could be timed so as to anticipate the period of greatest emergence.

There is a somewhat beautiful twig gall on the Bald Cypress of the South. It is oval, about half an inch long and usually brownish; a greatly swollen portion of a branch bearing rudimentary leaves and containing yellowish or orange colored maggots destined to develop into fragile gall midges, insects quite distinct from gall wasps.

The Soft Maple and the Cottonwood are frequently more or less disfigured by the galls produced by tiny mites. Those upon the Soft Maple leaves are about one eighth of an inch in diameter, greenish at first, turning reddish and eventually black. They may be so extremely abundant as to seriously deform the foliage, though we have yet to note a case where the vigor of a tree was greatly impaired in consequence.

A related mite attacks the blossoms of Poplar and Cottonwood and transforms them into an irregular, unsightly mass of tissue which remains upon the tree over winter and is undesirable from an esthetic standpoint.



SOFT MAPLE LEAF

Showing the numerous pouch galls of a blister mite. Early spring spraying with lime sulphur or a miscible oil is a specific for this trouble

ATROPHIED GOLDENROD

Attacked by insects while the tissues are still in the bud, the arrested tip of the Goldenrod takes this peculiar form known as a rosette gall

Winter or early spring spraying with a lime sulphur wash or a miscible oil appears to be a specific for infestation by both of these gall mites.

IT SHOULD not be assumed from the foregoing that gall insects limit their attack to trees. There are more than fifteen hundred different galls occurring upon many kinds of plants, the abnormal growths developing upon the roots, the stems, the leaves, in leaf or flower buds, or even in the fruit, much depending upon the plant and the insect attacking it. The Oaks are favorites with the gall wasps; the Hickories with certain gall-making aphids related to the well known grape phylloxera; and the Asters, the Goldenrods, and Willows afford food and shelter to long series of gall midges.

It is interesting in this connection to note that many of the peculiar blister-like developments upon the leaves of Asters, Goldenrod, and some related plants are the work of gall midges, though in earlier years they were supposed to be produced by certain fungi. There is also a beautiful flower-like gall upon the Bald Cypress of the South, likewise caused by a gall midge, though it was at one time supposed to be of fungus origin.

GALLS OF THE WOOL SOWER

The creamy-white, wooly matter with its spotting of crimson is in itself a beautiful object though a sad affliction for its host the Oak

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THE GROWING OF IRISES FROM SEED

A. FRANCIS MORTON, Jr.

A Garden Sport of Infinite Fascination for the Lover of Glowing Color

IRIS may be grown from seed by any one, with a little care and patience, and the reason why there are so few amateurs who are growers of seedling Iris must be attributed to the fact that few dealers offer any seed other than that of the Japanese Iris.

Tall Bearded Irises do not produce a great deal of seed, and unless one is trained to gather the pods as they mature during the summer, much of it will be lost, for all kinds do not ripen simultaneously and as soon as the pod opens at the top the seeds will scatter.

When to Gather and How to Sow

I HAVE begun gathering seed in early August, going over the plants every other day for a full month. The seed-pod (ovary) is located just above the spathe valves and as the Iris bloom begins to fade the fertilized ovary will commence to swell. It will gradually become darker in color and then split at the top. An afternoon's heat, when the first split appears, is sufficient to cause the pod to pop open and scatter the seed. It is a good practice to go over the beds daily and pick all the discolored seed-pods, whether they have split or not, and keep them in a warm, dry place, in covered trays. The seed may be cleaned at the time of gathering or when the harvesting for the season is finished.

After cleaning the seeds, stratify them in moist sand, and then put them aside for planting in the late fall which I have found more satisfactory than sowing as gathered, a proceeding some other raisers prefer, however. (See, for instance, Mr. Sherman Duffy in June Garden Magazine.—Ed.)

I always work up a good seed bed first, and then plant the seeds (an average of 25 to the foot) in narrow drills (the width of a small hoe) covering them with half an inch of soil. I firm the soil over the seeds with my feet and then rake the drills lightly with a steel hoe to avoid the danger of the tamped earth hardening or caking. Then I cover the rows with gladiolus tops which are left on until late May. This gladiolus leaf mulch protects the baby Iris in their first days, and keeps the soil mellow and moist.

What the First Summer Brings

WHEN the leaves are raked off the four-inch drills show an irregular lot of little green shoots, some only half an inch in height. It is not necessary to shade them and they are extremely hardy from the start. By July the largest are ready for transplanting, and I have made it a practice to sort out these to transplant first. The tops are cut back to three inches above the earth, and the plants then dug and reset. Digging and resetting is carried on all through the summer, for as I have said, the seedlings vary in growth and vigor. At the time of the first transplanting there will be some "babies" too small to take up; and it may be of interest to know that I have had seed lie dormant in the drills for three years before germinating! It might also be worthy of note that the second-year stand is always better than the first.

The transplanted seedlings are set one foot apart in rows three feet apart, and not moved again until they have bloomed. About one third will bloom the second year; none of them bloom the first. I have waited six years for a bloom from some seedlings and in most cases the wait was worth while. While most of the seedlings will make as many as five divisions by the fall of their first season, by the time they have bloomed, the plants, originally planted one foot apart, will have filled out the open spaces in the rows.

Which Types Seed Best

THE Japanese Iris seeds very freely, but it is not generally advisable to attempt growing this class owing to the necessity of planting in semi-marshy land. The Japanese plant their Iris seed in their rice fields which are flooded during the summer and then drained off. They are fertilized with liquid cow manure several times during the winter while the plants are dormant and in the spring when growth commences they are left alone.

The Siberian Iris is also a profuse seeder, but the blooms of the seedlings of this class do not vary a great deal, and unless one is propagating for commercial purposes, but few seeds should be planted.

But the Tall Bearded Iris, sparse seeders though they are, do "shoot" some wonderful colors and color combinations. (Artificial hand fertilization described in the June G. M., page 291, is desirable.—Ed.) In my plots I have pale pinks, deep yellows, soft yellows, rich clarets, mahoganies, deep maroons, pale lavenders, grays, whites, royal purples, browns, old golds, violet-reds, buffs, bronze-blues, ageratum-blues, and countless color combinations of these. Some carry pale lemon beards, others show a brilliant orange, and still others soft blue beards. There will be freaks a-plenty, some ugly to look upon, others, washed-out, with imperfect blooms, but in the main there is a greater percentage of desirable blooms to each hundred seedlings of Iris than of any other variable perennial I have ever grown successfully from seed.

Baby Iris are not hard to please; they do not require a rich soil; they delight in a somewhat lime soil, with full sun-exposure. Never allow fresh manure to touch the plants, cultivate them as you would any ordinary root vegetable, and they will reward you handsomely. Truly, the Iris is the plebeians' Orchid!

GOOD AUGURY FOR AUGUST

ARE you planning to do any repapering this autumn? If so, you will be interested in what *Amy Richards Colton* has to say on WHERE TO USE WALLPAPERS OF FLORAL AND LANDSCAPE DESIGN. This is a pleasant way to keep a bit of garden brightness with you all winter and Mrs. Colton's suggestions are always well worth considering as she speaks from the fulness of long practical experience as a decorator.

THE LOST GARDENS OF CAMBODIA, one of those romances of fact more fascinating than any flight of fancy, by *H. H. Manchester.*

From intimate personal knowledge and association with plants, *B. Y. Morrison* writes of EVERGREENS THAT KEEP THE GARDEN ALIVE and *Agnes Fales Huntington* tells of IRISES FOR EVERYBODY, grouping them according to color, rose-purple, old gold, and all the lovely radiant rainbow hues flaunted by this family of flowers.

Some delightful SEASIDE ROCK GARDENS designed and planted by *Beatrix Farrand*, WATER GARDENS; and 300 MADONNA LILIES MORE THAN HALF A CENTURY OLD are among the picture features of the coming month.

National Garden Week for 1925 to be observed April 19th—25th

WHERE ORCHIDS ARE AT HOME

E. H. WILSON

Assistant Director of the Arnold Arboretum; author of "Romance of Our Trees," "Aristocrats of the Garden," "A Naturalist in Western China," "Travel Tales of a Plant Collector," and other works.

II. TROPICAL ORCHIDS OF THE NEW WORLD

[*Part 1, Orchids of the Old World, appeared in May*]

A Little Mexican Orchid Which Furnishes the Cook with Vanilla—Gay and Sweet-scented Natives of Two Americas Sometimes Also Arrestingly Beautiful and Bizarre

EDITORS' NOTE: The amazingly spectacular and instructive exhibition of Orchids recently staged in Boston by the American Orchid Society (see detailed account page 363) drew visitors literally by thousands, offering unprecedented proof of the popular interest in this flower so long considered an exclusive interest of "the idle rich." Gardening too, it would seem, reflects the general upward trend of living standards which continually metamorphose the luxuries of yesterday into the necessities of to-day, and anybody with six spare feet of space may grow Orchids all their own (see Mrs. Henry's article on page 339 of this issue). From Mr. Wilson's accurately detailed descriptions of some of the outstanding Orchid species native to the western hemisphere, an idea may be formed of the wide and fascinating variations of this plant family and a few of us at least will be spurred to lure these tropical delights to an abiding place in our northern homes.

FROM the tropics of the New World our gardens have received some of the showiest and most popular Orchids known. The Cattleyas, Laelias, Oncidiums, Odontoglossums, Miltonias, Masdevallias and many other favorite genera are all natives of the American continent. The first exotic Orchid introduced into Great Britain was *Bletia verecunda* from the Bahamas in 1731, and the species still finds a place in the collection at Kew Gardens. It is a comparatively insignificant thing with erect racemose purple flowers, but of great historical interest.

The only Orchid of real economic importance is *Vanilla planifolia*, a climbing plant native of Mexico but now much cultivated in the tropics of the Old World. It is a member of a small genus, mostly South American. The well-known spice or flavoring agent (vanilla) is obtained from the fruit which is a long fleshy capsule, slightly yellow when ripe, but before the pods are ready for market they are subjected to a curing process during which the characteristic odor is developed. The aroma and flavor are chiefly due to the presence of a substance, known as vanillin, contained in a balsamic oil which gradually permeates the whole fruit and slowly accumulates as crystals on the outside of the cured pods. The plant has a round green stem, fleshy, elliptic leaves and insignificant flowers, and is an inhabitant of hot swampy regions.

The giants of the American Orchid world are the Sobralias which are found on mountains from Mexico to Peru. They have slender cane-like stems from 6 to 12 ft. tall, well furnished with rather thin, dark green, lance-shaped leaves, which terminate in large Cattleya-like flowers. One of the best known species is *S. macrantha* with rich red-purple to crimson flowers. The Costa Rican *S. leucoxantha* has white sepals and petals and a yellow lip flushed with orange.

Some Kings of the Orchid World

KING of the Orchid World is Cattleya, a small genus of probably less than fifty species natives of Central America, south to Brazil. All have large and brightly colored flowers the lip of which possesses much character, being often fringed and intensely colored. The lip encloses the column but is not united to it, and from its base a nectary runs down into the ovary. The familiar *C. labiata* is one of the finest of all species and very amenable under cultivation. Native of Brazil, it flowers in October and November. It and its numerous forms are among the most common Orchids grown and need neither description nor praise. The variety *Warneri* with its rich crimson-fringed lip is also Brazilian; the variety *Gaskelliana* which flowers in the early autumn and is sweet-scented, and the variety *Percivaliana*, which flowers in January and February, are natives of Venezuela.

THE TOOTH TONGUE ORCHID

One of the most decorative, and where it can be grown, one of the most useful florists' Orchids is Odontoglossum crispum. It likes cool conditions and has been somewhat difficult to grow but the modern hybrids with Cochlioda have given it bright colors and made cultivation easier

The favorite *C. Mossiae* with foot-long furrowed pseudo-bulbs hails from La Guayra and is in flower from March to August. Of *C. Mossiae* and indeed of all the species, there are many fine forms which have received distinctive names. The winter-blooming, pink-flowered *C. Trianae* hails from Colombia and is represented by many named varieties and forms. One of the best is the variety *Mendelii* with its richly colored magenta lip. From Colombia also comes *C. gigas* with short one-leafed pseudo-bulbs and large flowers, the sepals and petals of which are pink, the lip large and broad, rich purple or violet with a large yellow eye-like blotch on either side of the throat. Another grand species is *C. Warscewiczii* whose large flowers with sepals and petals, white flushed with purple and a rich crimson lip, are produced during the winter months.

The Costa Rican *C. Dowiana* is recognized as one of the very finest of all Cattleyas. It has foot-long, furrowed, club-shaped, one-leafed pseudo-bulbs and bears a spike of five or six flowers. The sepals and petals are bright buff-color suffused with crimson and the lip dark velvety crimson streaked with golden yellow. The variety *aurea* has primrose-yellow sepals and petals and is native of Colombia. Very distinct in appearance from any of the above is the Brazilian *C. Aclandiae* with olive-green heavily barred and blotched with dark purple flowers, the lip magenta-purple.

Orchid enthusiasts will recall dozens of others, but this sketch of Cattleya must end with mention of the remarkable *C. citrina* from southern Mexico. This has bright yellow fragrant flowers produced from between a pair of gray-green leaves which top the small egg-shape pseudo-bulb. The leaves and flowers both hang down, contrary to the usual manner of plant growth.

Of the Genus Laelia

THE mention of Cattleya immediately conjures up the closely related genus Laelia which differs in having eight pollen masses instead of four. Laelia is a smaller genus than Cattleya and the species are mainly from the hotter parts of Mexico, Guatemala, and Brazil. The first that demands notice is the Brazilian *L. purpurata* whose magnificent flowers are among the finest of all American Orchids. The pseudo-bulbs are two feet and more long, furrowed, more or less spindle-shaped with a pair of oblong leaves notched at the apex and bear a truss of from 3 to 7 flowers. The sepals are recurved and spreading and with the broader petals are pure white; the lip is rich crimson sometimes tipped with white passing to rose color at the base and yellow within the throat. It flowers during the early summer. From the same country hails *L. harpophylla* with slender, round, one-leafed pseudo-bulb and racemes of from 6 to 8 flowers with lance-shaped sepals and petals, orange-vermilion, lip of same color edged with white.

Very different in habit is the Mexican *L. anceps* with clusters of from 3 to 6 flowers at the end of a long, slender but rigid stem. The flower is about 4 inches across with purple to rosy-lilac sepals and petals and a crimson lip marked with yellow toward the base. It blossoms in December and January. As in the case with other species there are lovely pale-colored and albino forms of this charming Orchid. Somewhat similar, but a dwarfer plant with recurving petals and sepals and a broader lip, is *L. autumnalis*, also from Mexico.

A truly superb Orchid is *L. superbiens*, a vigorous species with a flower scape from 3 to 9 feet long produced in winter and bearing sometimes as many as 20 flowers. The sepals and petals are deep rose color paler toward the base, the lip crimson in front, yellowish on the sides. This is a Mexican plant and so too is the dwarf *L. majalis* whose flowers are from 7 to 8 inches across with rosy-lilac sepals and petals, and 3-lobed purplish lip marked with white. It flowers from the young growths during the summer months. Its whole plant is only a few inches high and the size of its flowers is in consequence most surprising. There are other fine species of Laelia and the crossing of this genus with that of Cattleya has produced the bigeneric Laelio-Cattleyas in all their astonishing variety and beauty.

Diminutive Plants that Prove Fine Parents

ON THE Organ Mountains in Brazil grow some half a dozen species of Sophronitis, a genus of diminutive plants with large flowers that has been of immense service to the Orchid-breeders. Crossed with Cattleya and Laelia it has given rise to some glorious hybrids. The finest species is *S. grandiflora*, with one-leafed pseudo-bulbs and flowers 3 inches across. The sepals and petals vary from cinnabar to dark scarlet and the lip which has pointed and incurved sides is yellow streaked with bright red. It flowers in November and December. A related species with violet colored flowers is *S. violacea*.

Another genus which has been crossed with the above three genera, much to the advantage of the Orchid lover, is Brassavola. One of the handsomest and most used species is *B. Digbyana* from Honduras. This has Cattleya-like flowers with the edge of the lip broken up into long hair-like fringes, which character has been transmitted to its hybrid progeny. The sepals and petals are greenish-white tinted with purple and the lip cream colored stained with purple at the tip. The gray colored *B. glauca* from Mexico differs chiefly in its white lip which is not fringed.

The genus Epidendrum of which over 400 species are known has also been united with Cattleya and the other genera by the hybridist. An old but very beautiful species is *E. vitellinum* with erect racemes of orange-vermilion flowers with segments (the lip especially) sharp pointed and yellow column. The form called *majus* is superior to the type. This Orchid is Mexican but it also grows in Guatemala.

Very different in habit are *E. erectum* and *E. radicans* which have tall, slender, leafy, branching stems and which terminate in racemose clusters of flowers, magenta-purple in the first-named, orange-scarlet in the other. The flower is small with deeply lobed and toothed lip, but lasts for a long time and the plants themselves are in flower well-nigh the year round. These and others are natives of Mexico and other parts of Central America.

From the mountains of Colombia came *E. Wallisii*, another leafy, thin-stemmed species that grows 2 feet tall and has flowers 2 inches across, yellow spotted with purple, the lip flattened, whitish, prominently streaked with purple. This again is in flower for most of the year and is a very attractive species. The West Indian *E. fragrans* with rather small cream-colored flowers, the lip streaked with crimson, deserves mention on account of its delightful fragrance.

Of the many others I have only space to name *E. prismatocarpum* a striking species of vigorous habit and foot-long leaves crowning stout pseudo-bulbs. The flowers are racemose, creamy yellow, the sepals and petals marked with dark purple blotches and the free part of the lip rose color margined with pale yellow. It is native of Central America and blossoms in June and July.

Very closely related to the Epidendrums is the handsome *Diacrium bicornutum* native of Trinidad and Demerara. It is distinguished by the lip being free at the base and spreading with two hollow horns between its lateral lobes. The pseudo-bulbs are fusiform, about a foot high; the flowers are pure white each about 3 inches across with a few crimson spots in the middle of the lip and produced from 6 to 12 in a raceme. A lover of strong heat and abundant moisture, it is seldom seen to perfection under cultivation.

Of Butterfly Orchids and Other Beauties

THE Oncidiums are a very large group comprising about 300 species found from Mexico and the West Indies southward to Brazil. Many have beautifully colored flowers produced, in some species, many hundreds together in large much-branched paniculate inflorescences. Such a species is the Guatemalan *O. leucochilum* whose flower stems are sometimes as much as 10 feet long and bear a multitude of greenish-yellow barred and blotched with dark brown flowers each with a lobed white lip. The Brazilian *O. flexuosum* with its showy yellow, spotted with brown, flowers produced in abundance is a favorite Orchid with many folk.

Lovely, too, is *O. varicosum* and its variety *Rogersii* with rich clear yellow lip 2½ inches across, but insignificant sepals and petals; the inflorescence is much branched and bears a hundred and more flowers in the late autumn. Yet another with flower stems of similar character is *O. tigrinum* from Mexico and adjacent lands with yellow lip 2 inches across and greenish yellow marked with shining, chestnut-brown sepals and petals. The flowers have the odor of Violets and open in late autumn and winter. The very similar *O. splendidum*, native of the same countries, flowers in spring and early summer. Very different in appearance is *O. macranthum* with large sepals and petals each with a distinct claw and a very small, pointed lip. The color is varied and attractive; the upper sepal is olive-brown suffused with gold, the two lateral ones orange-yellow, the petals bright yellow and the lip white marked with brown on the sides. The blossoms are from 3½ to 5 inches across and borne on a twining, branching, many-flowered stem several feet long.

From the Organ Mountains, Brazil, came *O. crispum* with its large and remarkably handsome flower borne some fifty or so together in a panicle. The blossom is from 2 to 3 inches across, greenish-brown to reddish-brown with yellow stripes, and the parts are beautifully crisped. This Orchid seems to have no set period of flowering and so can be seen in bloom at different times through the year.

There are scores of other species worthy of description but *O. papilio*, the Butterfly Orchid, must not be forgotten in the briefest of lists. This species with its singularly attractive flowers is native of Trinidad and Venezuela and has dark-colored flattened pseudo-bulbs each capped by a single purple-brown leathery leaf. The flower-scapes which arise from the base of the plant are slender, erect, about 2½ feet tall, and continue to bear through a long season flower after flower though seldom is there more than one open at a time. The back sepal and the two petals are each about 3 inches long, linear and erect, dark green without, purple within; the lateral sepals are oblong, tapering, wavy, and arched downward, bright yellow with transverse bands of orange-red; the lip is roundish about 1½ inches across, yellow mottled all over with brown, and waved along the edge. Its common name well describes the appearance of the flower.

Some Oncidiums like *O. varicosum* have ordinary looking pseudo-bulbs, in others like *O. papilio* they are flattened and make humus collecting niches against the support; in others like *O. Cavendishianum* they are absent and their function is served by thick, fleshy, erect leaves.

A Favorite of Collectors

A FAVORITE genus with curiously blotched flowers is Odontoglossum of which about 100 species are known from the high mountains of Mexico south to those of Peru. They require cool conditions and are not easy to grow at sea-level under our hot summer sun, but in England they thrive amazingly. The hybridist has been very successful with this genus and the outcome of his work is seen in hundreds of named sorts, many of which have flowers of extraordinary coloring.

Queen of the genus and one of the most useful of all Orchids is the Colombian *O. crispum* of which there are many named varieties. The flowers are fragrant and are borne in arching racemes which are sometimes panicled and vary from white to yellow and pink, some of the forms

THE GREAT ORCHID EXHIBITION OF BOSTON, MASS., MAY 8 to 11

On the occasion of the first exhibition of the American Orchid Society Mr. Albert C. Burrage, the President, completely filled the large exhibition room of Horticultural Hall with a varied display arranged naturalistically in geographic groups and realistically staged with Filipino huts in bamboo, Cocoanut Palms from Florida, and other accessory plants. The oval below shows a section of Mr. Burrage's exhibit of species and hybrids including the specimen Brassolaelio-Cattleya shown on the next page. This display was an epitome of the entire Orchid family, and perhaps the most educational single exhibit ever presented at a flower show

are wondrously spotted and marked with chocolate-brown, purple, or yellow. It has been introduced in vast quantities and no Orchid has been more diligently searched for by collectors. It blossoms at various seasons of the year but most freely from February to April.

Native of the same country as the sister species is *O. Pescatorei*, also a great favorite. Likewise *O. Harryanum* whose flowers are very different in appearance, with the petals curving sharply downward. The sepals and petals are chestnut-brown, barred and edged with yellow; the lip is white and yellow heavily feathered with bluish purple. A very showy species is the Guatemalan *O. grande*, an old denizen of orchid houses. This has gaily colored yellow barred with chestnut-brown flowers each from 5 to 7 inches across with rounded lip, white with a few concentric bands of chestnut-red.

Very sweetly scented are the golden-yellow blotched with red-brown flowers of the Colombian *O. odoratum*. The Mexican *O. Rossii* is a pretty and well-known species with white and purple flowers freely produced during the winter season.

First cousin of Odontoglossum is Cochlioda of the Peruvian Andes of which four or five species only are known. The best known is perhaps *C. vulcanica* with erect racemes of bright rose colored waxy flowers each 2 inches across; *C. sanguinea* is similar but has drooping racemes. In *C. rosea* the flowers are less brightly colored, but in *C. Noezliana* they are a wonderful orange-scarlet with a violet-purple column in marked contrast. These Cochliodas crossed with Odontoglossums have given rise to the hybrid genus Odontioda whose remarkable reddish flowers are among the choicest and most highly prized products of the orchid breeders' skill.

Flowers Like Doves and Like Helmets

MILTONIAS with their relatively huge, flat flowers with bilobed lip are greatly appreciated wherever Orchids are grown. The genus is a small one of about a dozen species found from Costa Rica south to Brazil. One of the very finest is *M. vexillaria* from Colombia with pink flowers of which half a dozen or so are borne on a slender raceme; there are many forms some with white others with deep rose-colored blossoms. The Brazilian *M. spectabilis* has white flowers with a finely colored lip, deep violet-purple at the base, rosy-crimson in the center. Beautiful are the flowers of *M. Phalaenopsis* with their fiddle-shaped lip, blotched and striped with

crimson; whilst those of *M. Roezlii* are delightfully fragrant.

Very useful plants are the Lycastes and *L. Skinneri*, and its forms rank among the finest ornaments of orchid houses. The pink to white flowers are from 6 to 7 inches across, the lip is 3-lobed and variously spotted with rose-red or crimson. It flowers in the winter months and is native of Guatemala.

Panama is the home of *Peristeria elata*, the Dove Orchid from the resemblance of the column of the flower to a dove hovering with expanded wings somewhat like the conventional dove seen in artistic representations of the Holy Ghost. The flower stems are erect, from 3 to 5 ft. tall, and bear racemosely many white waxy almost globose blossoms from July to September.

Very curious is Catasetum with hood-like flowers of three different forms which sometimes appear on the same plant. For a long time these forms were regarded as belonging to different genera, but it is now known that they represent merely the male, female, and hermaphrodite forms of one genus. The lip is uppermost in the flower and the column is provided with a pair of horns or antennae which in many species cross one another diagonally. When one of these antennae is touched, the pollinia are ejected with great violence. Among the best known species are *C. macrocarpum*, *C. tridentatum*, *C. Bungerothii*, and *C. saccatum*.

Even more remarkable are the flowers of the related genus Stanhopea which are borne on pendent racemes, or solitary and hanging. The flowers are massive in texture, beautifully barred and spotted with color, strongly fragrant. Perhaps the handsomest of all is *S. tigrina* with flowers 8 inches across. The lip and the column form a cage, narrowing toward the mouth and as smooth and slippery as glass. The base of the lip is like a bucket and is covered with juicy hairs. Other fine species are *S. Wardii* and *S. gibbosa*, the latter with flowers 6 inches across, yellow barred and spotted with crimson.

Another close relative is Cycnoches, the Swan Orchids of which *C. pentadactylon* may serve as an example. The flowers are racemose of two sexes resembling those of Catasetum, greenish-yellow, sometimes white, barred and blotched with chocolate brown and the lip in parts white spotted with red. The species was introduced in 1841 from Rio de Janeiro into England by William Lobb.

But the most extraordinary of all of this group is Coryanthes, the Helmet Orchid, a tropical South American genus of four or five species. The flowers are pendulous and wonderful in appearance, not easy to describe clearly without figures. The sepals are fairly large, bent backward, the petals are small; the lip is of a most complex shape, projecting horizontally from the base of the column is a bar bearing a dome on the end of which is suspended a bucket-like organ; the mouth of the bucket faces upward and the edges are incurved; there is also an overflow pipe projecting toward the sepals and closely covered in by the bent end of the column with the stigma and anther. From the base of the column project two horns which secrete a thin watery fluid that drips into the bucket keeping it full to the level of the overflow pipe. The dome above the bucket is composed of succulent tissue very attractive to bees who fight for places on it whence to drill the tissue; every now and then one of them gets pushed off and falls into the bucket. It can neither fly nor climb out and has to squeeze through the overflow pipe. In so doing the bee passes the stigma fertilizing it if it carries any pollen, and then passing the anther is loaded with new pollinia to be transferred to other flowers.

One of the best known species is *C. macrantha* from Caracas whose flowers are rich yellow dotted with red; the hood and part of the bucket is brownish red. Another is the Venezuelan *C. maculata* with dull yellow flowers, the bucket blotched with dull red within.

HYBRID ORCHID OF RARE BEAUTY AND VALUE

Brassolaelio-Cattleya Jupiter which won the gold medal of the Royal Horticultural Society and the silver cup of the Orchid Trade dealers as the most notable plant exhibited at the recent exhibition of the American Orchid Society. It is also seen in the bottom of the oval in the preceding page. The individual flower measured eight inches across and six inches in the other direction with the lip expanding three and one-quarter inches. A rare product of the hybridists skill; valued at $10,000. Flowers white with crimson shaded lip

Notable and Grotesque

THE winter-blooming genus Zygopetalum of which some twenty species are known, have handsome flowers often with a good deal of blue in their coloring. Such a species is *Z. Mackayi* with erect racemes from 1½ to 2 ft. tall which bear from 6 to 10 flowers each with purplish brown sepals and petals and a flattened rounded lip white heavily striated with blue. This species is a native of Brazil and so too is *Z. crinitum* with its bearded lip, *Z. Gautieri* whose lip varies in color from rose to blue-purple, and several others including the well-known *Z. maxillare*. The Mexican *Chysis bractescens* with nodding racemes of thick, fleshy white marked with yellow flowers must not be omitted. Its yellow flowered sister *C. aurea* is Venezuelan.

A noteworthy Orchid is *Schomburgkia tibicinis* with horn-shaped pseudo-bulbs each 1½ ft. long and a terminal mass of flowers on a stem 5 feet in length. The blossom is about 3 inches across with sepals and petals pink, spotted with chocolate, and lip white spotted with rose on the lobes which are erect. There are several other species and all are fond of sun and strong heat.

The Masdevallias are a large and varied group though very few have conspicuous flowers. A characteristic feature of the genus is the drawn-out apex of the 3 sepals which is often decidedly tail-like; the petals and lip are usually small. The flowers vary greatly in form and many of them are grotesque. Such species as *M. coccinea* and its variety *Harryana*, *M. Lindenii*, *M. ignea*, *M. tovarensis*, and *M. Veitchiana* have erect scapes from 8 to 15 inches tall bearing one, rarely two, pleasing flowers. These species are very free-blooming and deservedly popular. Another section, to which belong *M. chimaera*, *M. bella* and *M. nycterina*, have singular flowers, extraordinarily long tails to the sepals, and are more or less yellow heavily blotched with purple-brown.

The tropical American Cypripediums are now referred to the genus Phragmopedilum, but here it is convenient to mention them under their old and more familiar name. Many of the species have remarkable flowers, but none more so than the noble *C. caudatum* of Peru. This has tufted leaves and from the center of the plant after the leaf growth is finished arise flower stems each from 1 to 1½ ft. tall. The lateral petals are narrow, tail-like from 2 to 2½ ft. long and pendent, giving the flower an extraordinary appearance. The color is yellowish marked with brown. With this wonderful Orchid I may contrast *C. Schlimii* with its racemose bright rose-colored flowers each 2 inches across with a globose pouched lip.

The sins of omission here are many, as the Orchid enthusiast will be quick to note, but no attempt at finality is intended. These discursive sketches of a few of the prominent types of a wonderfully polymorphic family will have served their purpose if they impress upon the minds of readers the debt we owe to the tropics of both worlds for the wonderful flowers we know as Orchids.

'ROUND ABOUT THE HOME GARDEN AND GROUNDS

RED SPY, A NEW APPLE FOR THE HOME GROUNDS

Offshoot from Northern Spy Attracts by Its Beauty of Fruit

A TYPICAL Northern Spy apple with a solid, bright red color without stripes or splashes, grown on the grounds of the New York Agricultural Experiment Station at Geneva, is attracting much attention among fruit growers and is declared by all who have seen it to be the handsomest Spy ever seen. Cions of the Red Spy were received by the Station horticulturists in 1910 from C. E. Green of Victor, N.Y., but the trees did not fruit until 1920. The color of the fruit is the only difference to be noted between this new sort and its parent.

"Whoever grows Northern Spy, either for profit or pleasure, should try Red Spy," says the Station horticulturist. "It is true that the new variety has the serious fault of the parent, that of coming in bearing late, but there are many good characters to offset this fault. Thus, there are delectable quality and great beauty in the fruits, and in the tree hardiness, healthfulness, productiveness, and reliability in bearing to commend these two varieties. Nor should it be forgotten that the trees are long-lived, nearly perfect orchard plants, and that they bloom very late thereby often escaping late spring frosts which ruin the crops of other varieties. Northern Spy is still one of the best apples for New York, and Red Spy, with its beautiful fruits, will give life to this old sort."

HOW TO MULTIPLY YOUR FAVORITE POPPY

HAVE you ever tried increasing the number of your Oriental Poppies? Of course it is no great trick to get new plants from seed but the seedlings of this Poppy have a strong inclination to revert always to some of the rather distressing shades of brick red, which are so difficult to handle, particularly in a herbaceous border. There are now many interesting color tones in Oriental Poppies, ranging from a light pink to the deepest maroon, and even one white, and to preserve your favorite among these and get new plants is not only easy but quite interesting.

If you have a favorite Poppy plant and want more like it lift it during July and cut the roots off below the crown. Cut the roots into pieces about two inches long. Plant these about two inches deep and about twelve inches apart in whatever part of the garden you want the Poppy permanently. See that they are watered and are not allowed to dry out, and in August young plants will begin to appear. Nearly every piece of root will produce a plant of the same shade as the original. Do not disturb the young plants and next spring they will flower like old plants but of course the clumps will not be as large.—*Jesse A. Currey.*

USEFUL THINGS TO REMEMBER ABOUT THE LAWN

WHEN the hot days of summer come it is not advisable to cut as close as in May and June. For the summer grass cutting raise the blades of the lawn-mower a half inch over what they have been and every other time the grass is cut leave the catcher off the machine, letting the cut grass lie where it falls under the blades. This will not make the lawn look untidy, for a sprinkling or two will settle down all of the cuttings to give protection to the roots, which should be shielded from the burning sun of mid-summer.

Scarcely an amateur gardener who uses stable manure but blames it more or less for some of the weeds which grow to plague the most careful and diligent grower. Experience is that well rotted manure contains very few viable weed seeds. To ascertain if there is real danger, test the manure; particularly so if it is going to be used on the lawn. The test is very simple and will prove whether or not the fertilizing agency you intend to use contains weed seeds which may later become a menace. To test manure for weeds place a small quantity of the fertilizer in a cigar box and keep it warm and moist. In a week or ten days weed seedlings should appear and if they fail to do so you can rest assured that your fertilizer is safe to use in any part of the garden.

THREE HELPFUL HINTS FOR THE HANDY MAN

1. July and August are the months to get after Plantains. During the hot weather they seem to lose their grip on the soil and can be pulled as easily as a radish can be lifted in the garden.

2. Don't burn the caterpillar nests in your trees. That is likely to harm the trees. Take a long pole, drive long nails into it around the top end until it fairly bristles with them, like a round brush. Then roll up the offending nests on your pole. It is as easy as can be. Do this in the evening, after the caterpillars have come home to roost, and so get the entire colony.

3. Salting Asparagus is a good practice—not because salt helps the Asparagus, but because it kills the weeds. It does not harm the Asparagus. Whenever you make ice cream, pour your salt water over the Asparagus bed, and spread the salty residue out there, too.

LENGTHENING THE LIFE OF A FENCE

WITH wood becoming scarce and labor more expensive folks are finding it necessary to use some means of making their fence posts last longer. Experiments have shown that creosote will solve the problem.

Professor E. R. Gross, of the New Jersey State College of Agriculture tells us that fence posts treated in creosote will last from three to five times as long as untreated posts. This is especially true of the softer varieties of wood such as Willow, Ash, Elm, Soft Maple, White Cedar, and Cottonwood. Many consider it inadvisable to creosote even the harder woods such as Oak, Red Cedar, and Chestnut.

It is better to use round posts for creosoting rather than split posts, as the penetration will be more uniform. All bark must be stripped off and the timber well seasoned before creosoting. Creosote from eight to ten inches above the depth to which the post is to be set, since most rotting takes place at or just below the ground line. Posts three or four inches in diameter at the top give best results as they are strong enough for most purposes and usually last as long as larger posts.

It is important to get thorough and deep penetration of the creosote. A good vat is made of an old steel barrel set over a roughly constructed furnace. The creosote is kept at the boiling point and each batch of posts is left in the vat about two hours, depending on the rapidity of penetration. One inch penetration should be obtained. In order to determine this a post may be split or sawed in two. The tops of the posts are either dipped or painted with hot creosote.

WHEN IS A GLADIOLUS MATURE?

J. HORACE McFARLAND

Author of "Walks and Talks at Breeze Hill" (GARDEN MAGAZINE), "Roses and How To Grow Them," etc.

IN MIDSUMMER we regretfully desert Breeze Hill for a few weeks at our other home, Bide-a-Wee, in the heart of the Pennsylvania Alleghanies, close to Eagles Mere, the loveliest little lake in America. Though we are really in the fringe of a magnificent primeval forest and in a climate enthusiastically described as "nine months winter and three months late in the fall" there are flowers, both wild and cultivated, those particularly flourishing that enjoy cool nights. I most relish my own "front-yard" of Ferns and Bergamot, flanked by great Laurels and a superb plant of Viburnum cassinoides, and brightened by the continually flowering Rubus odoratus.

My neighbor at the other end of the lake, Mr. Hooper, has an Apple orchard, and has also been growing fine Gladiolus for several years. One August day his daughter entrusted to me for transmission to Mrs. McFarland a dozen great spikes of America. It is the story of these that has prompted the inquiry at the head of this item.

"We no longer cut Gladiolus" said Mr. Hooper. "We simply pull them up when the first flower is open, then comfortably trim off the bulb, which is at once cleaned and stored for next year. We find that three months in the ground is enough to mature the flower and the bulb."

To my astonished remonstrance as to the presumed necessity for "ripening" the bulb, Mr. Hooper replied by pointing to the superb America spikes I held, telling me that they had been grown from bulbs so treated last year. I examined these fine spikes closely. There were several flowers four inches across, and none under three. The spikes ran from twelve to fifteen inches net, with none carrying less than twelve flowers. The foliage was fine and full, and the stalks heavy and firm. The soil in which these bulbs made these flowers is not rich, being stony mountain ground, farmed for a few years. It is a red sandstone base that has slowly broken up into arable land.

Is the insisted necessity of maturing the Gladiolus bulbs until the foliage dies down just another tradition, accepted without consideration or contest, like the ultra-deep preparation of the ground for Roses which I have dared to neglect?

Who knows? I expect to try for myself at Breeze Hill, and I will then know more. It would be much of a garden relief if I need not coddle the plants of "Glads" that have been cut. Common sense indicates that when the old bulb has matured its flower the new bulb might well be also matured. But last year some of Mr. Kunderd's fine sorts bloomed in less than two months, for I cut a spike of his lovely Dr. Van Fleet on August first from a bulb planted June eighth. Is that bulb matured?

Let us experiment!

PRIZE POEM COMPETITION

THROUGH the generosity of Mrs. Charles H. Stout, THE GARDEN MAGAZINE *is privileged to announce the offer of a $50 cash prize to be awarded for a new and original poem on the Dahlia. Verse submitted in this competition must be of joyous mood in any lyric form, but not exceeding six stanzas in length. Competition closes October 1st, 1924, and all entries must reach* THE GARDEN MAGAZINE *not later than that day. Contestants may submit any number of entries, with the name and address of the author plainly marked on each one, addressing them to the Dahlia Poem Contest, % Editors of* THE GARDEN MAGAZINE, *Garden City, N. Y.*

A Neighbor's Garden in Iowa

Grape vines and climbing Pink Roses are rapidly clothing the pergola with color and shade, and the flowerbeds in front are planned for a summer series of flower pictures in tints of rose and lavender beginning with early Tulips and ending with hardy Chrysanthemums. Iris, Peonies, Ageratum, Zinnias, and Petunias also bloom generously here in the garden of Dr. and Mrs. John Hamilton at Cedar Rapids. "The plan", Mrs. Hamilton writes, "we have gradually worked out for ourselves and we have certainly enjoyed it. The picture is taken from the terrace of the house with broad steps leading down to it, on either side of which in the spring Daffodils bloom in profusion. The pride of the garden is the pool with its bronze fountain by Raoul Larch of Paris"

AMONG OUR GARDEN NEIGHBORS

EVERY GARDEN MEANS A HOME

LURE OF THE ORCHID

BOSTON achieved another great horticultural triumph when the Massachusetts Horticultural Society acted as host to the first national exhibition of the American Orchid Society, May 8th to 11th.

The display itself was remarkable for its diversity, for its spectacular quality, and for the whole-hearted enthusiasm of the members of the Society responsible for it, led by the President, Mr. Albert C. Burrage, whose wealth of plant material alone completely filled the main exhibition room of Horticultural Hall and who in addition filled the adjoining smaller hall with selections from his library of books and pictures about Orchids. However much a few individuals, here and there, may take umbrage at being invited to even consider Orchids as plants for the ordinary gardener (for, unfortunately, there are a few such) there is on the other hand, the fact that this memorable exhibition was visited by interested amateurs and growers from the Middle West and from the South and even from Europe, and the attendance for the duration of the show was over fifty thousand people; eloquent testimony to the interest, lure, and appeal of the Orchid.

The notable display that Mr. Burrage made surely marks a new standard and sets a distinct pinnacle in the method of displaying horticultural exhibits. The entire hall was turned into a perfectly orderly, unconventional—or rather naturalistic—arrangement of Orchids in geographic groups, while the far end of the hall was closed by a huge rock-work towering to the roof, down which tumbled a very real and ample stream of water splashing and spraying the plants about it as it broke and fell. Across the front of this lay a procumbent trunk of a fallen tree exhibiting epyphital Orchids as growing under natural conditions. This was the South American corner, dominated by Cattleyas in rich varieties.

In the opposite end of the hall, the Philippine Island group, a full-sized orchard tree was utilized to display Moth Orchids (Phalaenopsis). Single large trees similarly used appeared elsewhere in the hall; there were two Filippino huts of bamboo, full-sized; and four towering Cocoanut Palms laden with fruits that the exhibitor had transported from Florida and set up in the hall. Java was represented by Vanda. A group of Masdevallia portrayed South America. Cymbidium and Vanda coerulea represented the East Indies. And then, by contrast, in a little corner were four hardy New England terrestrial Lady-slippers.

In addition, banked in more conventional form, was a huge display representative of the more spectacular forms of this great family and sprinkled with many specimens of the most modern rare hybrids including one, Brassolaeliocattleya Jupiter, with three expanded blooms each measuring eight inches across, the champion plant of the exposition, winning the gold medal of the Royal Horticultural Society of England—the first time such an award had ever been offered in this country—the silver cup from the European Orchid traders, and other honors. Medals of honor were showered around with profusion which seemed lavish, but was in every way justified by the exhibition.

Such was the result of this the first effort of the American Orchid Society. Although the organization has had existence for a few years, it had never before ventured into the field of publicity. And very wisely, as it seems to us, the President formally expressed the hope that the organization would not attempt another public exhibition for the period of two or three years, thus setting a lead which might perhaps be advantageously copied by some of the other special flower societies to the members of which the annual pilgrimage hither and thither has become somewhat burdensome and especially when one's sympathies find active affiliations in several different organizations. "Fewer and better shows" might be a profitable slogan for these national flower organizations now seemingly obsessed with the "annual show" notion. Perhaps even a five-year period would not be too much in some cases to give a breathing spell not only to the much driven membership, but to give measurable distance and a standard of time for the introduction of worth-while novelties.

In other respects there were notable improvements at Boston. For instance, in the minor detail of labelling, instead of the conventional white card the Society adopted a green both for entry and for the individual plant name, and this individual labelling was admirably carried out from beginning to end of the display by all exhibitors. A matter of congratulation to the management and of extreme satisfaction to the visiting public which "wants to know."

It is not practical to record here details of individual exhibits, but the exhibitors who contributed to this memorable and notable effort deserve the record. Mr. Thomas Roland, of Nahant, had a rich collection of Cypripediums, Dendrobiums. and Odontoglossums displayed with consummate taste so that each plant could be seen.

A notable amateur exhibit occupying the center of one of the halls was from Mr. F. E. Dixon, of Elkins Park, Pa.

J. T. Butterworth, Framingham; George E. Baldwin, Mamaroneck, N. Y.; Edward H. Roehrs, Rutherford, N. J.; Lager & Hurrell, Summit, N. J.; and among the notable amateur displays, Mr. Clement Moore, Hackensack, N. J.; a group of hybrids of known American origin. A. N. Cooley of Pittsfield; Mr. E. B. Dane, Chestnut Hill, Mass.; and a remarkably interesting contribution that Sir Jeremiah Coleman sent over from England, admission of which was graciously granted by the Federal Horticultural Board.

Mr. Gurney Wilson, who representated the Royal Horticultural Society, officiated as chairman of the jury and delivered a very entertaining lecture during the course of the show, and similar contributions came from Prof. Oakes Ames, from Mr. Lager, and from Prof. Knudson who detailed the sugar method of raising Orchid seedlings which has already been told in these pages. (November 1922, page 162.)

Elsewhere in this issue the reader will find the second part of a broad review of the Orchid family contributed by Mr. E. H.

Wilson, and which deals largely with the wild species in their native homes. Until very recently such formed the bulk of our "collections" the plants being imported from abroad as collected wild. To-day such entry is prohibited, but hybrids, artificially produced in cultivation may be brought in and therein lies the present-day lure. These man-made products are opening up new vistas of beauty and fresh channels of interest, and they may as readily be made here as elsewhere.

Lest some of our readers may assert too vigorously that Orchids are for the exclusive enjoyment of only those who have large greenhouses and a corps of skilled gardeners at command we publish on another page a convincing account of a "band-box" Orchid collection in a city yard. It's "the will to do" that wins!

THE Gladiolus is achieving fame as a really popular garden flower and is sharing the favors of fortune of the Dahlia, Peony, and the Iris. Its growth into its present popularity has been a steady upward progress from small beginnings for a good many years. Now the National Society is to visit New York to hold its 15th annual meeting and exhibition August 8th, 9th, and 10th at the American Museum of Natural History in conjunction with the regular meeting of the Horticultural Society of New York. The Canadian Society meets at Guelph, Ont., August 20 and 21.

Another center of interest, perhaps the most concentrated one, is in New England where preparations are being made for a large gathering at Horticultural Hall, Boston, from August 15th to 17th.

No wonder the flower grows in favor, it is so certain of results, and modern improvements have forced attention to the merits of the plant in the garden.

OPEN COLUMN

Readers' Interchange of Experience and Comment

Where Vegetables Grow in Red Rock

To the Editors of THE GARDEN MAGAZINE:

YOU may remember that some time ago you published a fine picture of Rockledge (see page 174, May, 1923, G. M.), the residence of Mr. and Mrs. G. W. Heath, near Manitou. I wonder whether you were told that back of this residence there is the oddest vegetable garden you ever heard of—a veritable "hanging garden" terraced and having beds of vegetables at every available nook and corner—Sweet Corn, Cabbages, Lettuce, Carrots, and what not. By the time one reaches the uppermost beds one will have climbed by all sorts of devious paths fully one hundred and fifty feet above the level on which the residence is placed. The frequent stops that one must take to regain one's breath are compensated for by the magnificent views from constantly changing angles of Pike's Peak, Al Magre, and Cheyenne Mountain. What puzzles me is how the gardener could have persuaded anything to grow in the red disintegrated rock that seems to form the only "soil" of these beds.—GEORGE WM. VEDITZ, *Colorado Springs, Col.*

Queries from Virginia

To the Editors of THE GARDEN MAGAZINE:

THE old-fashioned Microphylla Rose has many enduring qualities, but it has, at least in this part of the world, a very serious fault. Can you or any of your readers tell me why a large percentage of its blossoms turn brown in the bud and fall? And is there a remedy?

Mr. Bernard Lane's letter in the March number of your magazine was read by me with great interest. Never until this season have I been willing to grow Cleome spinosa or pungens in my garden, but it wasn't because of the common name—spider-plant. What is a name after all! But did Mr. Lane ever chance to smell the handsome flower, I wonder? However, in an out-of-the-way corner that needs lighting up immediately, I believe it will be invaluable. I have been interested in this plant since I saw it first, eight or ten years ago, running wild gloriously in the mountains of Tennessee. Gray's "Botany" informed me what it was, but, in common with Mr. Lane and the seed catalogs, failed to mention its odor—also nobody speaks of any variety but pink and yet I am quite sure that many of the plants in that place had pure white blossoms—I wonder if any of your readers know where the white variety can be gotten? Gray's Handbook came to my rescue again this spring. Somebody gave me in the fall, a clump of a plant she liked but did not know the name of. Just now it is in full and most lovely bloom—a thick mass of rose-purple spikes six inches high and lovely indeed against gray limestone. When the blossoms are gone, the cool green leaves, each with a white splotch on it, are also very attractive. Gray calls it Lamium maculatum and I can cordially recommend it for rock garden or border. I do not find it listed in any of my catalogs but doubtless it can be gotten and I hope that by calling the attention of some of your readers to this plant of decided charm, I may make some small return for the valuable information I get month after month from "The Open Column."—S. GLENN ATKINSON, *Staunton, Virginia.*

COW-PARSNIP (Heracleum lanatum)

Though not suited for general gardening, the Cow-parsnip, a native plant, is sometimes very effective as a single specimen with its bold foliage and vigorous umbels of white or purplish flowerets. It is here shown growing happily in the eighty-year-old Eddy garden at Brookfield, Massachusetts

The Public's Point of View on the Flower Shows

To the Editors of THE GARDEN MAGAZINE:

YOUR comment on the type of most of the exhibits at the New York Flower Show in the May GARDEN MAGAZINE was very pertinent, and voiced my humble opinion, and I am sure countless others, in pointing out the lack of practicability of most of the exhibits for common or everyday garden use. The Pierson's rose garden and Bobbink and Atkins' rock garden were the only two one can imagine the average person carrying out.

Won't you continue your crusade in this direction and use the influence of your magazine toward the exhibition of a few garden plans from which the simple ten-thousand-dollar-a-year-commuter (with many children and consequently too poor to go in deeply for "Hyacinths to feed his soul"), may hope to receive practical inspiration and concrete instruction?

Why not an exhibit to drive home the importance and comparative simplicity of succession of bloom—a small plot or border in bulbs and early shrubs, Flowering Almond, Forsythia, and the like; adjoining it a companion exhibit showing the same space after the bulbs are over their blooming period and their dying leaves are covered by the on-coming perennials, Peonies, Phlox, annuals, etc.? The third exhibit could reveal the autumn glory of late Lilies and Asters and Sunflowers trained down to cover the spaces left by the defunct August and September plants. The illustrations in Mrs. Louise Beebe Wilder's "Colour in My Garden" convey my meaning perhaps more clearly.

Since the high rents in New York City have driven so many people to the suburbs and men and women are adventuring blindly and hopefully with their first 75 x 100 ft. plot of land, it seems to me the most helpful and educational thing the flower show can accomplish is to lend these amateurs a guiding hand.

It's the simple mechanics of gardening that are so baffling to most of us, not only what to plant but how to space! In Mrs. Francis King's delight-

ENCOURAGEMENT FOR GARDEN NEIGHBORS ON THE PRAIRIES OF THE GREAT NORTHWEST

Three views of the Forest Nursery Station at Saskatchewan, Canada, showing the development of trees, shrubs, and flowers between 1905 (picture just above) and 1922 (two upper photographs), revealing the possibilities of plant material for the Northwestern prairie region with its scant rainfall and 50 below zero temperature

ful writings I find "Regal Lily is good with Heliotrope. or lavender Phlox with Thalictrum adiantifolium to mask its stems. Phlox W. C. Egan to plant in front of L. regale with Phlox Rhinelander to follow on practically the same spot." Outside of learning by years of practical experience, what is the secret of planting things "on practically the same spot," and can it be reduced to inches and demonstrated before our eyes by some great-hearted exhibitor at the next flower show?—Alberta Hill Smith, *Staten Island, N. Y.*

—I was glad to see, in your report of the Flower Show held in New York City, a criticism of the labeling of the various exhibits.

The primary object of these exhibits is educational—to help the amateur gardener select plants for his own use by aiding him in visualizing the effect created by the use of the combination of plants, accessories and colors. I have attended many shows and have become interested in a particular plant, but the labels have been so small that it was impossible to make a note of it, especially in the event of a particular plant placed in the background. I believe it would help consideraby if plants were to be labeled in bold letters or provided with conspicuous numbers and a list or schedule were displayed near the exhibit, giving the correct name against the particular number.—Leon A. Malkiel, *New York City.*

Planting Where Winters Are Fifty Below Zero

To the Editors of The Garden Magazine:

VERY few people at present realize the horticultural possibilities of the great prairies in the States and Canada and therefore I thought that the accompanying photographs showing the development of the grounds at our Nursery Station, situated on the bare prairies of Saskatchewan, might be of interest to some of your readers who live in districts where conditions of climate are somewhat similar.

We have been taking The Garden Magazine regularly for about fifteen years, and we have been able to secure many valuable ideas and suggestions; more particularly from the splendid illustrations showing landscape and planting arrangements, which have been of very great assistance in developing our ornamental plantings. The season here is very short, even at this date (May 5th) the Lilac buds are just swelling, and killing frosts usually occur towards the end of August. The rainfall averages perhaps 17 inches and winter temperatures often fall to 45 to 50 degrees below zero. In spite of these adverse conditions it is wonderful the results that can be secured in the course of a very few years when proper methods of culture are employed and use is made of hardy varieties. We have no irrigation and but a very small water supply, which can be used only sparingly for annual flowers.—Norman M. Ross, Chief of Tree-Planting Division, Forest Nursery Station, *Saskatchewan, Canada.*

Old-Fashioned Flowers for the Colonial Home

To the Editors of The Garden Magazine:

ONE July I was idly pulling withered stalks from a clump of Bleeding-heart, and among the faded leaves was about six inches of white stalk. I wondered if it could form roots and mounded the earth around it after a good watering. The season was rather damp, and a little fernlike shoot appeared in a couple of weeks, survived the winter underground and greeted me with several clusters of lovely rosy bells last spring. Needless to say, I am repeating my experiment.

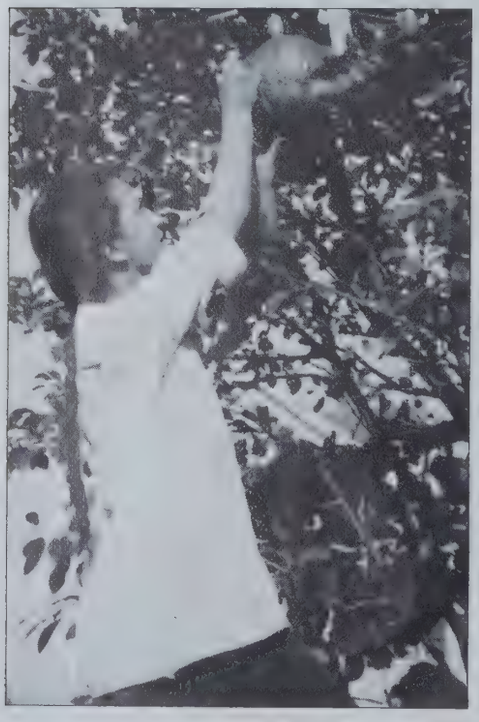
I inherited the original plant with my present dwelling and the quaint flowers are most suited to its Colonial style. But I rescued it from an obscure niche looking south, and placed it as the center of the

perennial border near my front doorstep. Around it at intervals I planted big rosy Darwin Tulips and Poet's-eye Narcissus in groups, with a few salmon-pink Clara Butt nearer the border of blue Forget-me-nots. Now when it blooms it is a delight to the passer-by with its three-foot circle of dainty pink bells and pale green foliage. Down the gray cement walk rise pale pink Hyacinths interspersed with white L'Innocence and Wedgewood blue Grand Maître. Then pink and white English Daisies with blue Forget-me-nots spring up around snowy Picotee Tulips that blush into rosy beauty as the bold bees gather round them. Why do not more lovers of Forget-me-nots grow them? The seed of this year's plants gives a host of newcomers ready for fall transplanting. Since we sowed our first seed, we have had all we could use, and they need little protection.—G. A. Gardin, *Ridgewood, N. J.*

"Highbrow" Squash

To the Editors of The Garden Magazine:

A MAN once told me he had growing on his place the most peculiar Squashes that he had ever seen. Because of their habits he named them "Highbrow." This was because instead of working out their struggle for existence against the bugs, flies, and fungus on the ground like any respectable Squash they climbed neighboring trees and made short-sighted people swear they had seen apples as big as pumpkins. The story, and fruit, was too much for my credulity but my



EVEN VEGETABLES HAVE THEIR AMBITIONS

"Both feet on the ground" need not handicap man's achievement if a Squash can manage to leave its roots so far behind! And incredibly enough, this particular specimen has climbed so high that in order to reach it the little lady had to get a step-ladder

camera verified the suspicious tale. (See above.)—L. J. Doogue, *Dorchester, Mass.*

A Twenty-Year-Old Boston Fern

To the Editors of The Garden Magazine:

WHEN we consider its decorative value, its simple cultural requirements, and the fact that it is a truly long-lived plant we need have no hesitancy in recommending the Boston Fern as one of the best of available house plants. The Fern shown in the accompanying photograph is about twenty years old and has been under my care for the last fifteen years. During this period the plant has been repotted in the spring every third year, being shifted each time into a pot about two inches larger than the one occupied until on the last occasion a special wooden tub had to be made for it. The soil used is a mixture of equal parts of well-rotted manure, the equivalent of leafmould, good garden soil, and clean sharp sand. This was thoroughly mixed and screened, and most of the old soil was removed without, however, disturbing the roots unduly. After repotting, the plant was given an abundance of water.

The daily care is simple enough. Give enough water so that the soil in the pot will keep moist without ever becoming too wet. The feel of the soil is the best guide in this matter. In a window where it can have full sunlight at least half the day a Boston Fern will thrive—mine stands next a window facing west and has flourished here for the last fifteen years and more. The plant should be turned half way around occasionally, hardly more than once a week, though the rate and manner of its growth will determine that. Do not be worried if a frond dies now and then, for that is the nature of its growth, old fronds are discarded and ever new ones produced and an interesting way they have of uncurling themselves.—C. L. Meller, *South Fargo, North Dakota.*

A BOSTON FERN THAT IS NEARLY "OF AGE"

With many people the Boston Fern is a favorite house plant and it is heartening to learn that with very simple care it readily lives to a ripe and robust age (see accompanying note)

Why Aren't These Roses Included?

To the Editors of The Garden Magazine:

THE Rose Referendum in the March number of The Garden Magazine was most interesting, but as so often happens I looked in vain for some of my favorites and wondered that their merits, which make such an appeal to me should fail to attract others. One of these is Mrs. Alfred Carriere. It was included in the list for the Western states, but it is hard to understand why it is not more generally known and admired. It is an old Rose, a Noisette, and sometimes is said to be not quite hardy in the North, but I know of plants in the vicinity of New York City which, unprotected, have survived the most severe winters and have flourished and grown in beauty for many years. It is a large, creamy white, double Rose, with loose petals, very fragrant, blooming in June and occasionally in the autumn. If one could make use of the term in reference to a flower, I would say that it was a lovable Rose, and in my own mind when thinking of my favorite Roses it invariably has first place.

Another climbing Rose, which is not even mentioned, is Roserie, called, I believe, the Pink Tausenschoen. The flowers are larger than Tausenschoen and of the most wonderful shade. It is difficult to describe the color; a rich, clear, deep pink. It does not make a very rampant growth and as a Pillar Rose the blossoms literally cover the plant from head to foot. One of its greatest merits is that the color does not fade. Whether on the plant or in the house it never assumes that blue tint so often seen in the full blown pink or red Rose. Its one demerit is lack of fragrance, but Frau Karl Druschki is conspicuously lacking in a Rose's greatest charm and yet it was second on the list of favorite Roses. When one sees all the beautiful bright cups of Roserie held up to the sunshine and the dew, one forgets the lack in admiration of its present glory.

Why is it that with all the demand for a yellow Rose, Emily Gray is not included in any one of the lists? Wonderful shining foliage, beautiful even without flowers, long, deep yellow buds and later the full flower paler than the bud but still a soft buff, much richer than Gardenia. Bess Lovett, one of Doctor Van Fleet's best creations; bright crimson, large, double and fragrant is also conspicuously absent from the lists.

I would like to know why the Roses mentioned are not more generally known, or more generally written of and admired.—S. T. H., *New York.*

Where You Can Get Corydalis Seed?

To the Editors of The Garden Magazine:

I AM much interested in Mrs. Wilder's article about Corydalis in the April, 1924, Garden Magazine. I wonder if she, or any subscriber,

REDEEMING THE MEDIOCRE HOUSE BY PLANTING

Just the ordinary things—Lilacs, climbing Roses, Hollyhocks, and Honeysuckle have been used to clothe and screen the dwelling and the light, silvery foliage of Poplar trees adds a pleasant note too. It does not take much imagination to see how unattractive this square, box-like house would be without some such friendly planting

can tell me by way of the magazine, where Cordyalis seeds or plants may be purchased? Perhaps there may be others that would like to know. Have been searching catalogs for two or three years but so far, all I have been able to get are plants of Corydalis glauca.—A. Reader of G. M.

—I know of no way other than to raise them from seed. One or two nurseries have from time to time listed a few but I have found none that could produce them upon order. Correvon of the Floraire Nurseries, Geneva, Switzerland, offers ten or twelve kinds (seeds). These plants save the bulbous forms—bulbosa, cava alba, and one or two others, are not difficult to raise from seed though some, notably nobilis and densiflora, are slow to germinate. C. lutea comes very quickly, and afterwards sows its own seed. I regard this and C. cheilanthifolia as the best for general use. C. thalictrioides and C. Wilsoni have not proved hardy with me, but would be perfectly sound farther south.—Louise B. Wilder, *N. Y.*

The Flicker as a Friendly Ally Against Ants

To the Editors of The Garden Magazine:

IN REGARD to the question of abolishing the persistent black ant, I offer the suggestion that one make use of nature's own provision, namely the flicker. This bird is equipped with a long tongue which is a most efficient ant-gatherer, and ants make up more than half of the flicker's diet. A properly constructed flicker nesting-box should bring a pair to the garden, and a family of hungry young birds supply the incentive for the doing away with more than one colony of pestering ants. Such boxes, perferably on the type of the Berlepsch boxes, may easily be obtained, or constructed, and one must not neglect to put in the box a handful of sawdust mixed with earth. Moreover, according to Prof. John H. Comstock, the noted entomologist, ants not only protect plant lice by driving away from them their natural enemies but the ants also carry the lice to their homes in winter, protect the eggs, and in the spring place the young lice on plants. So, even if an inquisitive, over-active flicker does occasionally drill holes in the cedar trim of our house during his playtime in autumn and winter, these valuable birds are very welcome in our garden.—Frances S. Twining, *Glenmorrie, Oswego, Oregon.*

A Query from California—Rhode Island, Please Answer!

To the Editors of The Garden Magazine:

IN THE January number I noticed some remarks from M. E. Main, Westerley, Rhode Island, anent a yellow flowering perennial, Buphthalmum salicifolium. Since reading about it I have tried to get seeds, but so far have not been successful and should esteem it a favor if your correspondent (or any one else for that matter) could tell me where to obtain it.

I am, as far as the Moonflower is concerned, of the same opinion as Anna E. Hill, writing in a recent issue, and think it should come under the category of "noxious weeds."

In conclusion may I say that the magazine is as much a bracer to the garden lover as a good dinner is to a hungry man.—Chas. Garrity, *San Francisco, Cal.*

H. Troth, photo.

"IT SEEMS AS THOUGH THE COUNTRY'S VERY HEART
WERE CENTERED HERE, AND THAT ITS ANTIQUE GRACE
MUST HOLD IT FROM THE WORLD APART.
IMMURED IT LIES AMONG THE MEADOWS DEEP,
ITS FLOWERY STILLNESS BEAUTIFUL AND CALM."

John Russell Hayes

Now that American gardening has passed beyond the "freshman" stage the beauty of informal plantings is being increasingly appreciated, and the Hemerocallis or Yellow Day-lily is particularly suited by character and habit to such untrammeled growth. In her delightful book on "Old Time Gardens," Mrs. Earle tells us that the Lemon Lily (Yellow Day-lily) was "a favorite flower" and that "often its unbounded luxuriance exiled it from the front yard to the kitchen door-yard. Its pretty old-fashioned name was Liricon-fancy, given, I am told, in England to the Lily-of-the-valley. I know of no more satisfying sight than a good bank of these Lemon Lilies in full flower."

GARDENING FOR THE BEGINNER

THE MONTH'S REMINDER—JULY

As to Time and Place: In gardening practice a date can only be approximated as seasons vary and local conditions will have some influence. Generally the latitude of forty degrees at sea level and a normal season is taken as standard. Roughly, the season advances or recedes fifteen miles a day, thus Albany would be about ten days later than New York (which is latitude 40). The latitude of Philadelphia is a week earlier. Also allow four days for each degree of latitude, for each five degrees of longitude, and for each four hundred feet of altitude. Latitude forty passes through Philadelphia, Pa.; Columbus, Ohio; Richmond, Indiana, Quincy, Ill.; Denver, Col.

How to Use This Guide: Suggestions as to the most important things of the month are given in this department so as to "remind" the gardener of the current duties. For routine details of such things reference should be made to standard handbooks and guides. It is impossible to make a complete manual of practice in each number of a periodical magazine. Yet timely articles will be found elsewhere in each issue, and references to back numbers will often solve the immediate question. Moreover, the editorial staff stands ready to help any reader with personal advice by mail. A self-addressed stamped envelope should be enclosed with the question.

Who Writes This: The advice and instruction in this department are the gleanings of many years experience in practical gardening matters by competent amateurs and others who have "been through the mill." The contributions are made from various sections of the country: for example, Mr. W. A. Currey contributes from Oregon; Mr. Theiss from Pennsylvania; Mr. Henry Gibson from Pennsylvania (formerly from New York); Mr. Sherman Duffy from Illinois; from Mr. A. Kruhm from an extensive Eastern acquaintance; and, in addition, occasional notes from elsewhere and by the editorial staff and associated contributors of experience.

JULY ushers in a period of trial in gardens and in the Middle West at least there is a strong probability of several weeks of hot dry weather between now and September first which tries the skill of a gardener. Added to the trying weather conditions, the water supply in a large number of communities is rationed or barred for use on the lawn or garden when most needed. Preparation is the main hope now. Cultivate the soil to a fine dust mulch in the vegetable garden by frequent hoeing.

Do This Month

1. **Keep on cultivating**
2. **Send on your bulb order**
3. **Transplant for fall and winter**
4. **Plant root crops for winter use**
5. **Keep after the bugs and blights**
6. **Send on your order for evergreens**
7. **Prune Rambler Roses after flowering**
8. **Get ready for the new Strawberry bed**
9. **Plant for canning, drying, and preserving**
10. **Keep the lawn in condition for dry weather**
11. **Prune early flowering shrubs after flowering**
12. **Make first sowing of perennials and biennials for winter use**

In the flower garden, stir the soil fine and mulch with lawn clippings. If water supply is adequate, soak well, taking off the nozzle of the hose, allowing the water to soak in. Do not sprinkle,—*soak!* Watch the window boxes. Hundreds are ruined by neglecting to water daily.

Watch Dahlias carefully to see that they never want for water. A week of drought and they will start growing woody. The only hope in that case is to cut them down and start fresh growth from the roots.

Dig bonemeal gently around Delphiniums for a second crop of bloom. Give Phlox the same. Stake perennial Asters and Boltonias.

Put on Your Thinking Cap Now

AS A rule people are apt to plan their next year's garden in the autumn when the time arrives for transplanting, for the division of roots, or the setting out of bulbs, but the real time to do such planning is during July and August when the mistakes made in the last fall or spring planting are plainly seen. We may find some perennials which are not getting enough sunshine, or we may discover that a tree damaged in last winter's storm has opened the way to give sunshine to a part of the garden where only shade-loving plants could grow before. Errors in color arrangement are now clearly visible too and in the herbaceous border there may be plants which are either too tall or too short to give a proper grouping. Study and plan your garden in the summer while things are actually growing, and be ready to correct when autumn comes.

If You Are Replanting Tulips and Narcissus

THIS is the month to dig late Tulip bulbs. Twist the stem and if it twines around the finger without cracking the bulb is ripe. Dig Poet's Narcissus clumps and replant at once after separating the bulbs.

Experience is a good teacher, and during the spring I learned a lesson about the double white Poet's Narcissus. This year quite a number in my garden came blind and I found that when I replanted last year I had moved them into too dry a place thus not only losing the flowers but evidently also injuring the bulbs as they have not set their flower buds for next spring. The foliage shrivelled early, not only stopping development of the bulb but also preventing any increase. If you want to have this Narcissus in a dry location, plant the bulbs twice as deep as you would otherwise and give plenty of water while the foliage is ripening.

Perennials and Pansies for Next Season's Bloom

PREPARE a seedbed in a shaded, sheltered position for perennials for next year. You can sow Pinks, Sweet-Williams, hardy Candytuft, perennial Alyssum, Hollyhocks, Delphiniums, Pyrethrums, Gaillardias, and a host of other perennials this month for next year. Cover larger seeds a quarter of an inch deep and press the soil down firmly over them.

Early-blooming plants will be maturing their seeds this month. All seeds with hard coverings germinate best if sown immediately after maturing, before the seed dries out. Some seeds will never sprout if once they become dry; others will require two seasons to sprout. The quickest and surest way to get good germination from such hard seeds is to plant them as soon as mature. If they are of the sort that will not germinate for weeks or months, take a box with the bottom knocked out or a bottomless crock, and sink it in the earth. Plant your hard seeds in this. Then you will know where they are, and can take proper care of them. Of course, it is too late to sow most annuals, but perennials can well be started now and some will bloom next summer.

This is the month in which you should sow Pansy seed if you want new plants early next spring. To get the best results use only the seed of an established strain, for it will pay you back in improved plants. Do not take anything that is offered or because it is contained in a fancy highly colored envelope. You will not find professional florists using seed without an established reputation, for they get their seed from specialists in the profession. There are several of these specialists in Pansy seed in this country and it is no exaggeration to say the seed they raise is worth its weight in gold—for I know of one expert who receives as high as $20 an ounce.

What to Do With Your Iris

DO NOT overlook the fact that July is one month when you should give attention to your Iris. Just because they have finished blooming do not feel they should be neglected until next spring but look after them now if you want plenty of flowers next season. See that they get plenty of water as it will stimulate new growth, and give them some fertilizer. Bonemeal is the safest fertilizer—just a sprinkling worked into the soil and then water. Never use stable manure or other organic fertilizer around Iris for there is grave danger of causing rot. Lime the soil for them, a coating that looks like a light snow and hoe or rake it in.

This is the best month to divide and replant tall Bearded Iris and to put in new varieties. The earlier they are planted now the surer of bloom you will be next year.

Getting New Plants from Cuttings

FIRMWOOD cuttings can be made this month from such plants as Weigelas, Hydrangeas, Roses, and like growths. Shoots of new wood are taken, selecting those on which the buds are developed and the wood should have about attained its full growth. Remove some of the leaves. Plant the cuttings one or two inches deep and with the ground kept moist, and shade supplied, it will require several weeks for them to root, but good plants can be had, which can be wintered in a cold-frame and planted out in spring. Shading and watering are the secrets of success in raising plants in this way. The beauty about this process is that it allows summer vacationists to bring home cuttings from plants they have seen and admired. When rare or scarce wood is used, and

cuttings are so short that they cannot be buried deep enough to support themselves, the cuttings can be wired to wooden stakes driven into the ground. These will hold them upright and keep the butts in the soil.

Keeping Flowering Shrubs in Condition

CUT out the old flowering canes of Spiraea Vanhouttei as close to the ground as practicable. Cut out the climbing Rose canes that have flowered although you probably haven't any this year if you live in the colder sections as none were left above ground to speak of except on the old Prairie Queen. Spray Spiraeas and Rose bushes with nicotine preparations to destroy the midsummer crop of plant lice that swarm at this season; for hard shelled pests the proprietary articles Dy-sect or Melrosine must be used.

Among the Fruits

CURRANTS hang on the bushes a long time without spoiling, especially if protected. If currant worms appear at any time, dust freely with powdered hellebore. Select a bush or two and cover with muslin or closely-woven cheesecloth. This will retard the maturing of the berries and one can thus have currants in August.

Raspberries, both red and black, will be done bearing in July, in the North. The canes that have just borne fruit should be cut out at once and burned. This allows the strength of the plant to go into the canes for next year's crop, and it helps to keep down diseases. Scales attack Raspberries badly. Anthracnose is very harmful to the black varieties. Prompt cutting of canes and their destruction by fire will help to keep both ailments in check.

Yellow Transparent Apple comes into bearing very young, often two or three years after planting. It is inclined to bear heavily. Make sure you take off a good part of the fruit each year for a time. This thinning will help the tree to establish the habit of annual bearing. Remember in the handling of fruit trees that with some varieties it is impossible for a tree to bear a large quantity of fruit and at the same time set buds for the succeeding year's crop. Help the tree by thinning the fruit.

The Fun of Making Your Own Fruit Trees

BUDDING can be done by late July. All you need is a sharp knife, a piece of string, a matured bud, and a new growth of wood in which to insert the bud. Every home gardener would find pleasure and profit in making a few trees for himself. In early spring crack the shells from a few Peach pits. Plant the kernels. By July you will have fine little trees. Get shoots of new wood from the finest Peach trees you know, make a T-shaped incision in the tender bark near the root, an inch long, roll back the bark, shave off a bud, slip it into the opening, and fasten the bark over it with your string. In three or four weeks it will grow fast and your string should be removed. Next spring all growth above your inserted bud should be cut off and the inserted bud alone allowed to grow. By autumn it will be a considerable tree, and by the next autumn it may have fruit on it. It is the easiest thing in the world to have in your own garden exactly the fruit you wish, whether nursery men sell the trees or not. Make your own.

Budding must be done when the bark slips easily (as it does in spring, when small boys make willow whistles) but there must not be too much sap flowing or the stock will "throw out" the bud. The latter will not grow fast. Though late July is an excellent time to bud, it is sometimes necessary to wait late until the desired buds mature. By that time the bark may be tight, so that budding is impossible, in which case cultivate your stock actively for a few days, using the hoe daily about it. New growth will be induced and the bark may loosen up so that the bud can be inserted. Then cease cultivation to allow the new wood to mature before winter. Stocks should be at least three-eighths of an inch in diameter to permit of easy budding.

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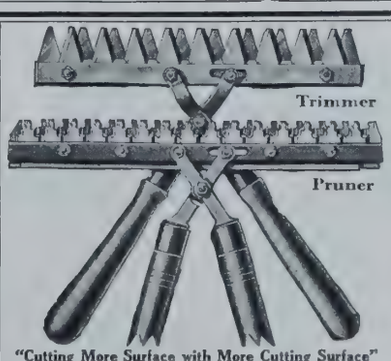

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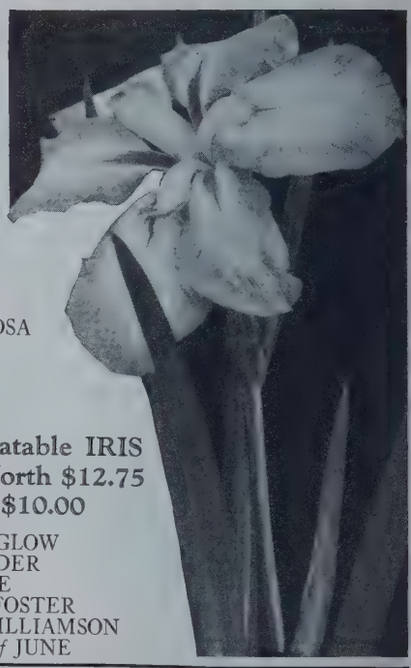

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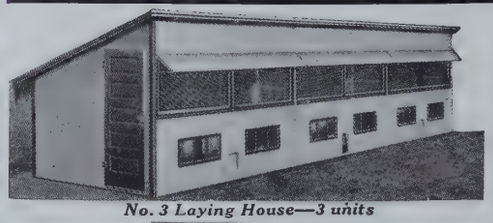

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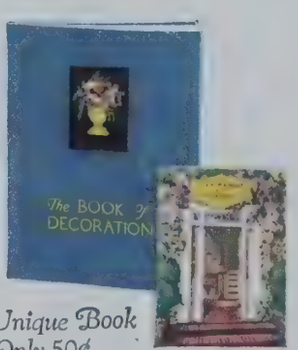

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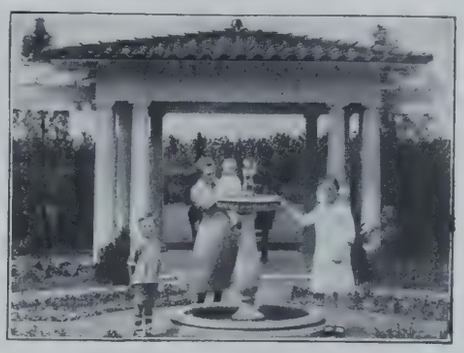

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From the Authority on Gladioli

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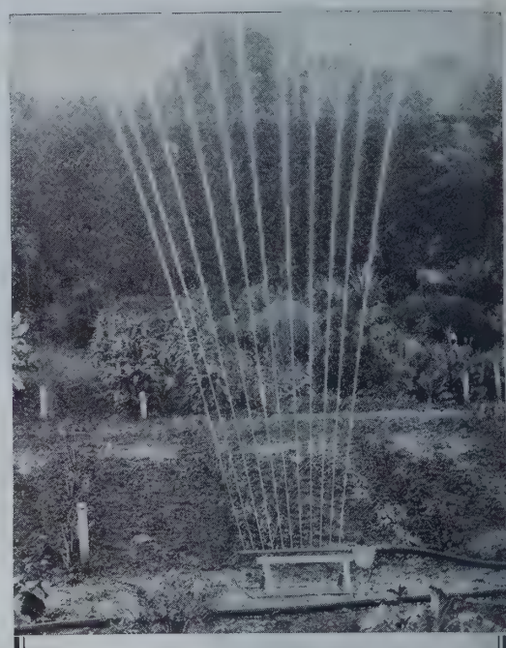

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There is *one sure* way to have a thrifty midsummer garden. Have on hand that handy rainmaker——

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This little five pound mechanical rain-maker will work wonders at the end of any garden hose backed with 15 pounds of pressure. Oscillating, it spreads an even, gentle rain, covering a rectangular surface, 15 feet wide by 60 feet long, and leaving no nook or corner unwatered. Easily adjusted just by turning a little thumb screw.

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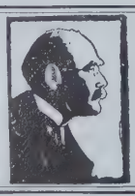

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IMPORTERS and growers of the finest varieties. Our stock grown in rich black loam, under Minnesota's rigorous climatic conditions is suitable for planting everywhere. Our large healthy roots assure you quicker results and larger blooms. Order now.

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Large, thrifty plants guaranteed to please. Rich, heavy soil required.

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Strong, well rooted, three to five eye plants

5 Standard varieties, $2.50, Postpaid
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50 Plants in 20 varieties, $15.00, Postpaid

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$10.00 This Complete Dutch Bulb Garden $10.00

Includes Free Delivery. 200 Bulbs

This unusual offer will be made only until August 1st. This offer brings you 20 rare Tulips (10 Breeders, 10 Darwins), 30 Daffodils, 50 Crocuses, 25 Chionodoxia, 25 Grape Hyacinths, 25 Scilla Sibirica, 25 Galanthus. The varieties in this collection are listed below. They are selected for their appeal to the critical garden lover, the connoisseur with a keen eye for color, form and harmony—we are also making special prices on each collection separately.

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	DOZ.
Anton Mauve—Immense. Violet edged soft gray-ish white	$2.00
Bleu Celeste—Brilliant violet blue. Wonderful	2.50
Duchess of Hohenburg—A lovely blend of lilac gray and rosy heliotrope	2.25
Beauty—Glowing salmon pink, blue base	.85
Giant—Enormous flowers. Deep reddish purple, shaded violet	2.00
Le Notre—A pink exhibition Tulip, base rayed blue and white	1.25
Louise De La Valliere—A clear rare petal pink. Much admired and sought for	3.50
Mauve Claire—Velvety lilac mauve, silvery edge	.85
Mystery—A wonderful shining black flower with blue base	5.00
Rev. Wolley Dodd—Rare deep bluish mauve starred white	2.25

The set of 10 Darwins (one each of above) **$2.25**

BREEDER TULIPS

Abd.-El-Kader—Dark bronze shaded lighter at edge of petals	$2.00
Bacchus—The bluest of all tulips, most effective	2.00
Copernicus—Splendid, coppery bronze, flushed old rose	1.75
Heloise—Enormous flowers. Purplish brown shaded old rose. Yellow base edged olive	3.50
Fairy—Large goblet shaped flowers. Rich chestnut red	1.40
Indian Chief—A magnificent tulip, reddish purple flushed coppery bronze	5.00
Plutarchus—Splendid. Bronzy yellow flushed heliotrope	1.20
Salomon—Long flowers, carried on tall graceful stems. Silvery lilac	2.00
Socrates—Stately habit. Deep rosy violet, blue base	1.25
Wilberforce—Extremely lovely. Soft apricot edged primrose	2.00

The set of 10 Breeders (one each of above) **$2.25**

JOYOUS DAFFODILS

King Alfred (Trumpet) Golden Yellow, deeply frilled trumpet	$2.75
Albatross (Barrii) Perianth white, frilled citron cup	1.25
Duchess of Westminster (Leedsii) A beauty. White, primrose crown crimped at the brim	1.25
Glory of Noordwijk (Bicolor) Gigantic. Yellow trumpet creamy white perianth	1.50
Homespun (Incomp) A perfect flower. Soft primrose yellow	1.50
Lady Godiva (Barri) Pure white, yellow cup edged scarlet	1.25
Lucifer (Incomp) White perianth, cup glowing orange red	1.00
Thelma (Trumpet) Very early. Very decorative, rich yellow, trumpets fringed	2.50
Will Scarlet (Incomp) White, fiery frilled scarlet cup	3.00
Queen of the North (Leedsii) Exquisite. White, crinkled cup pale canary	2.50

The set of 10 Daffodils (one bulb of each of above) **$1.75**

The 3 Sets—10 Darwins, 10 Breeders, 10 Daffodils—$6.00 postpaid *and*

25 Crocus Purpurea ..... Per 100 $3.00
25 Crocus Mont Blanc—White 3.00
25 Chionodoxia (Glory of the Snow) 3.50
25 Grape Hyacinths Heavenly Blue ..... Per 100 $3.50
25 Scilla Siberica. Blue 5.00
25 Galanthus—Snowdrops 3.00

20 Double Daffodils—Von Sion $1.00 per doz., Golden Phoenix $1.00 per doz., Alba Plena Odorata 65c per doz.

The above Set of 200 Bulbs $10.00 postpaid. 7th and 8th Zone add 10%

BOTANICAL TULIPS

Nothing more alluring or bewitching than these lovely little Tulips planted in the Rock garden, Spring borders, odd nooks, etc. Secure them NOW. VERY SCARCE.

	DOZ.
Clusiana—The "Little Lady Tulip" Distinct and beautiful. Outer petals cherry red, inside creamy white, violet base	$1.00
Didieri—bright scarlet with a black blotch	1.00
Didieri Alba—pure white, sweet scented	1.10
Cornuta Stenopetala—Red flushed yellow. Petals narrowed to a point	1.10
Kaufmannia—Early. Creamy white flamed carmine, yellow base. Most beautiful	1.25
Marjoletti—A tulip from Savoy. Pale primrose edged rosy red	1.25
Persica—Fragrant yellow flowers borne in twos and threes on slender stems	1.00
Saxatilis—Very early. Shining Satiny mauve shot with rose	1.75
Sylvestria (16 in.) Deliciously fragrant soft yellow flowers, with bronze exteriors	.85
Viridiflora—pale green edged creamy yellow. Very effective	1.00
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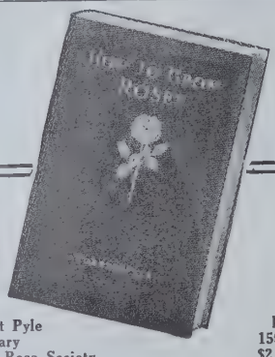

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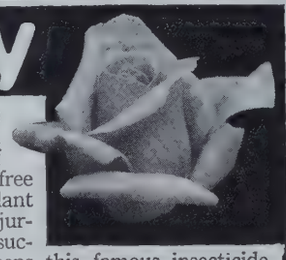

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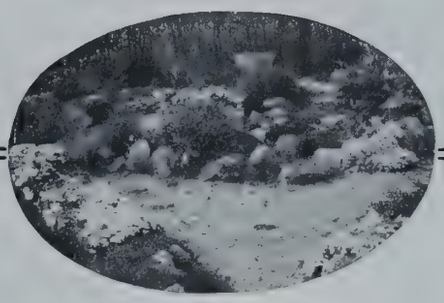

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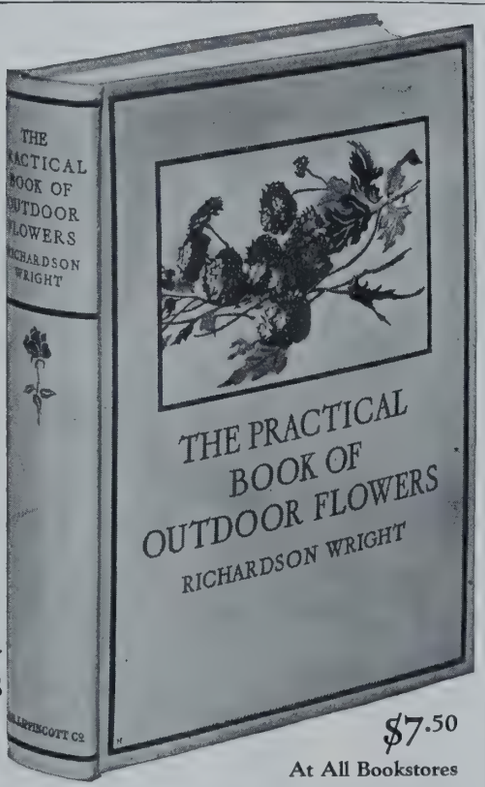

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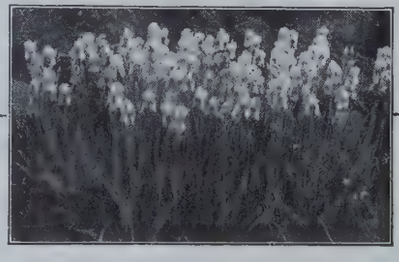

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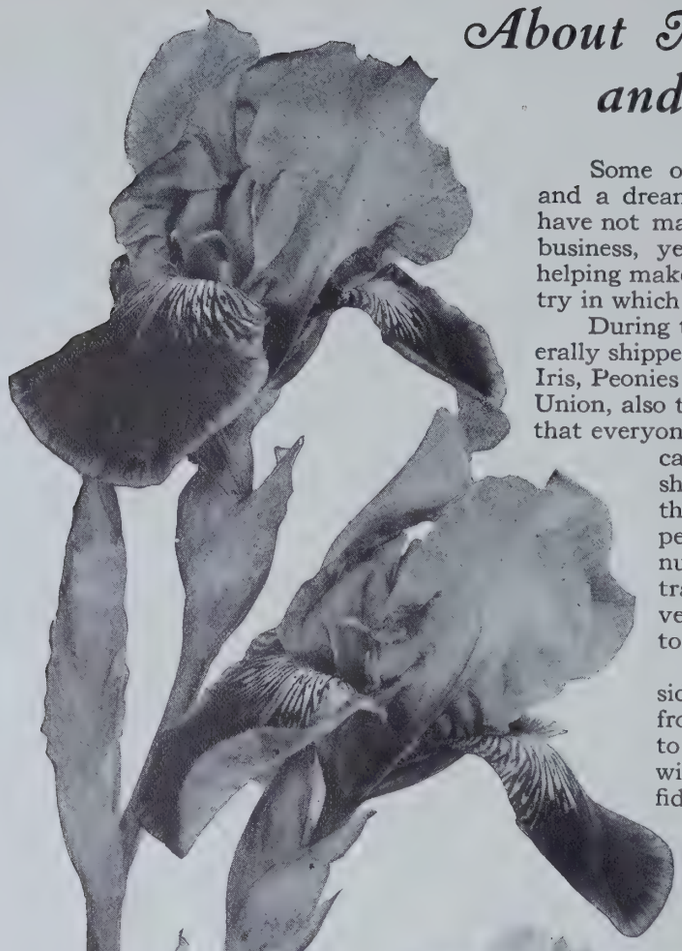


About My Ambition— and Specialties

Some of my friends call me an idealist, and a dreamer. And while it is true that I have not made very much money out of my business, yet I have had the satisfaction of helping make America a more beautiful country in which to live.

During the past twenty years, I have literally shipped thousands of roots and plants of Iris, Peonies and Phlox to every state in the Union, also to Canada and Mexico. I am sure that everyone of them has helped spread cheer, capture sunshine and put that sunshine into the growers' hearts. And this year I intend to spread the gospel of floral beauty to a still greater number of planters, hence this extraordinary message which the advertising man tells me is necessary to put the idea across.

My get acquainted offers alongside should interest you. Order right from this advertisement and leave it to me to fill the orders so that you will feel I am entitled to your confidence and patronage.

George N. Smith.

Wellesley Grown IRI

For Present Planting

I would very much like to se you a trial order because I am co vinced that offers below will win y as a permanent customer. Sure you will make no mistake if you t one or more of these collections:

12 IRIS *Worth $4.45 for* **$3.0**

Archeveque	*Monsignor*
Caprice	*Nibelungen*
Florentina	*Pallida Speciosa*
Gracchus	*Quaker Lady*
Helge	*Rose Unique*
Lohengrin	*Walhalla*

6 IRIS *Good value at $7.75, for only* $

Alcazar	*Juniata*
Anna Farr	*Wyomissing*
Baronet	*Sindjha*

6 IRIS *Worth $12.75, for an even* **$1**

Afterglow	*Lady Foster*
Crusader	*L. A. Williamson*
Isoline	*Lord of June*

100 Mixed Iris, all good ones for $ 5.
1000 Mixed Iris, all good ones for 45.

WELLESLEY GROWN PEONIE

10 PEONIES

Worth $7.75 for **$5.00**

Alexandre Dumas
Avalanche
Grandiflora Nivea Plena
La Sublime
La Tendresse
Mme. Ducel
Modele de Perfection
Hermes (single)
Auguste Miellez
Archie Brand

8 PEONIES

Worth $57.00 for **$50.00**

Frances Willard
La Cygne
Longfellow
Mme. Jules Dessert
Mons. M. Cahuzac
Solange
Therese
Tourangelle

MIXED PEONIES

12 for $ 2.50
100 for 18.00

6 PEONIES *Worth $13.00 for* $10.00

Admiral Togo
Chestine Gowdy
Eugene Verdier
Frances Willard
Karl Rosenfield
Midnight (Brand)

PHLOX, Extra choice mixture, $1.50 per doz.; $10 per 10

GEORGE N. SMITH

167 CEDAR STREET **WELLESLEY HILLS, MASS**

MY GUARANTEE

If upon receipt of any plants or roots you get from me you do not feel that you have been treated right, write me, and I will either refund your money, or send you other plants, you to keep the original lot about which you complain without any extra charge. If I could think of a stronger guarantee I would give it.

Finally, *A Novel Idea* that made me many new friends last year:—Send me three dollars and I will send you the biggest Dollar's Worth each of Iris, Phlox, and Peonies, provided you leave the selection to me. All to be correctly named. Write for my modest little catalogue. ALL READY for careful service and *prompt* shipments.

BOBBINK & ATKINS

Ask for Catalogs

Visit Nursery

Peonies and Irises

OUR catalog *Hardy Herbaceous Plants* contains special lists of Peonies and Irises. It is a complete catalog of Hardy, Old Fashioned Flowers and Rock Garden Plants, many of which we have growing in pots for Summer Planting. Beautifully illustrated in color and black. It contains an especially instructive alphabetical table of Hardy Herbaceous Plants indicating flowering period, approximate height and color.

Potted Roses

We have many thousands of potted field grown Roses for immediate outdoor planting. A list of our potted Roses will be sent on application.

Pot-grown Plant and Vines

We are growing in pots for summer planting Heather in variety, Japanese Holly, Evergreen Hawthorne, Euonymus in variety, Wistaria, Clematis, Hop Vines, Honeysuckle, Silver Lace Vine—all are described in our catalogue of Evergreens, Trees, Shrubs and Vines.

In your request for catalog, it is important to state definitely what you intend to plant.

You are invited to visit our experimental Rose Garden and Rose Fields.

BOBBINK & ATKINS

Nurserymen and Florists

Rutherford New Jersey

Lotty's

Timely Tips—

HARDY BOXWOOD

We have on hand a splendid stock of hardy box, symmetrical, bushy 3 year old plants 16″ to 18″ high and exceptionally shapely. All have firm balls of roots, so we can ship at once. Price $15.00 per dozen, $100.00 per hundred.

Write us as to your needs—our catalogue may be helpful.

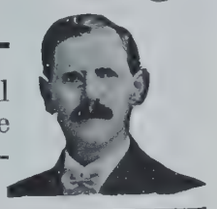
It's a good plant if it comes from

Madison, New Jersey

Better Flowers for Discriminating Buyers at 4 East 53rd St. New York City

Lotty's

Most of You Think of Me as "The Dahlia King," BUT—



Isn't it logical that anyone who loves flowers should want to chum with them almost the year around? True, Dahlias will always rank first in my affection, but the early blooming Iris and Peonies affect me like a spring tonic, after the strenuous rush of the spring shipping season. Their delicate orchid shades will delight you, too. My collection embraces only distinctly

Worth-While IRISES—

German, Siberian, Japanese

Six of the Largest for $2.00

Her Majesty. Heliotrope.
Princess Victoria Louise. Soft primrose yellow.
Dr. Bernice. Coppery bronze.
Lohengrin. Cattleya-rose.
Nibelungen. Exquisite fawn shades.
Pallida Dalmatica. Giant Lavender.

Special Dollar Offer 5 German Iris for $1.00

Flavescens. Soft yellow.
Queen of Gypsies. Bronze and purplish red.
Mme. Chereau. White edged violet.
Herant. Large lavender blue.
Florentina. Alba-white.

Japanese Iris, or Iris Kaempferi, $2.00 Offer:
6 Distinct sorts, all different, for $2.00.

Iris Siberica White, and Iris Siberica Blue. 25c each; dozen, $2.50.

SPECIAL OFFER—Send $5.00 for all the Iris here offered, including 2 each of Iris Siberica white and blue, and I will add a fine Peony root, (my selection, but worth at least $1.00) giving you a total of $6.00 value for $5.00 postpaid.

J. K. ALEXANDER

World's Largest Dahlia Grower

27-29 Central Street

East Bridgewater Massachusetts

FREE: Fall Guide to Spring Gardens

Contains many remarkable offers of Iris, Peonies, Tulips, Hyacinths, and other spring flowering bulbs and roots. Please write for it—a postcard will do.

WHITESHOWERS

A close up of the Garden Shower Maker.
It is 16 feet long and waters 800 square feet.
Made in 4-foot sections.

The Lawn Shower Maker is the happy happening of lawn watering.
Here is real watering satisfaction.
Made in 2 four-foot sections.

It's August That Plays Hob With Your Garden and Lawn—WhiteShowers Prevents It

THAT down at the heel, laggy look your garden and lawn take on in August, can be prevented if they are watered with a WhiteShowers outfit.
Not only regularly watered, but in the way nature does it when in her most beneficent mood.
WhiteShowers is patterned after nature.
It waters for you with the least botherment and surest effectiveness.
The Garden Shower Maker is 16 feet long. Composed of 4 four-foot sections.
Equipped with 8 Long Throw brass nozzles, so you can water 800 square feet at a time, without moving it.
Supplied with 3 steel spear rods, to support the Shower Maker anywhere you want it.
The Lawn Shower Maker is 8 feet long, and equipped with 4 two-way Dew Drop nozzles. Consists of 2 four-foot sections.
You can slide it around anywhere on your lawn, without turning the water off or getting a drop on yourself.
Here, then, are two complete WhiteShower outfits.
Both the best for the purpose.
Both giving you watering perfection with the least bother.
Each assembles easily and quickly.
They are made to last a life time.
Can ship at once. Send your order.

COMBINATION OFFER

The 8 feet Lawn Shower Maker costs, complete $8. f. o. b. Detroit.
The 16 feet Garden Shower Maker $12. f. o. b Detroit.
As a special inducement to garden and home lovers, we will make a combined price of $17.50 f. o.b. Detroit, for the two outfits.
Both are enduringly made. No mechanical or moving parts to get out of order.
Each has heavily galvanized pipe equipped with Jiffy Couplings and our special Long Throw or Dew Drop brass nozzles.
Shipped knock-down and boxed, complete.
Sold on an unconditional returnable, money back guarantee if not fully satisfactory after 30 days' use.
Prices are f. o. b. our factory, Detroit, Mich. Check, Express or money order accepted.

WHITESHOWERS
Incorporated
6453 Dubois St. Detroit, Mich.

Garden Logic

NATURE is logic itself! Given sturdy, well-rooted, strawberry plants, fertile soil and seasonable weather and crops are bound to result. Yes, and we assure you that you will gather fair crops of berries *this fall* if you start with Everbearing varieties and

Lovett's Pot-grown Plants

Write to-day for "Lovett's Midseason Hints" published to encourage the midsummer planting of Strawberry beds. It describes the choicest Everbearing as well as June bearing sorts, besides that great novelty "Lovett's All Season." As large as the largest June bearing sorts, it combines bearing qualities, size and luscious flavor in an extraordinary degree.

Learn all about "Lovett's All Season" and midsummer planting advantages by asking for the Catalogue TO-DAY.

LOVETT'S NURSERY
Box 125
Little Silver
New Jersey

Reasons for Results

The principal reason for gratifying results in the garden is the *rootsystem* of the plants set out. Given a fair foundation, reasonable care in setting out and a copious watering, plants of the type shown above can not help but grow! The soil in our nursery is friable yet tenacious. It encourages fibrous, compact root balls that hold together. Rhododendrons, Kalmias, Leucothoe, and all other broad-leaved Evergreen shrubs sent out by us reach you with properly burlapped roots for *sure* results.

August the Ideal Month to Plant

Right now is an ideal time to transplant these shrubs to your ground. Many early flowering wild flowers, ferns and many other hardy perennials have completed the year's growth and are in semi-dormant condition. Transferred to your garden they will establish themselves by root action *this fall* which means more flowers and better plants next spring.

Special Offer:—Rhododendron carolinianum, a beautiful, most free-flowering shell pink; an annual bloomer. Clumps like above, 12 to 18 inches, with large ball of soil, properly burlapped, safely packed and delivered to local express office, 5 for $12.50; 10 for $22.50.

Write for free catalogue TO-DAY. It will help you materialize unusual garden ideas.

EDWARD GILLETT *Fern and Flower Farm*
3 Main Street Southwick, Mass.

The Garden Magazine. August, 1924. Vol. XXXIX, No. 6. Published monthly by Doubleday, Page & Co., Garden City, N. Y. Subscription price, $3.00 a year.
Entered as second-class matter at Garden City, N. Y., under the Act of Congress, March 3, 1879.

Burpee's Winter Flowering Sweet Peas *for Your Greenhouse*

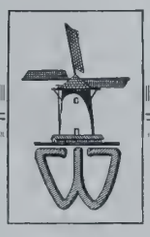
WHAT could be lovelier than dainty and fragrant Sweet Peas right in the midst of winter when all outdoors is covered with a blanket of Snow? Burpee's Early or Winter Flowering Sweet Peas are revelations of beauty and have been greatly admired whenever exhibited. You can have your greenhouse full of Sweet Peas all Winter long by planting in August or September.

We have prepared a special collection of Winter Flowering Sweet Peas for your greenhouse, containing one ounce each of the following eight varieties:

Bluebird. A charming shade of light blue.
Daybreak. Rich rose-pink on cream ground.
Enchantress. Bright rose-pink with deeper edge.
Flamingo. Light orange standard, orange-pink wings.
Glitters. Fiery orange standard with deep orange wings.
Lavender King. A rich shade of deep lavender.
Rosebud. Bright shining rose with a bronzy sheen.
Snowstorm Improved. The finest white Sweet Pea in the Early Flowering type.

One ounce each of the above eight Burpee varieties of Winter Flowering Sweet Peas, value $6.00, will be mailed postpaid to any address for **$5.00.**

W. Atlee Burpee Co.
Seed Growers Philadelphia



Timely Tips About Plants To Plant NOW

ON general principles, many early-flowering (May–June) hardy perennials go through a rest period or semi-dormant condition during July and August, to resume growth during the fall. Iris, Rock Cress, Alyssum, and Ajuga, are well known examples of plants for midsummer work. But there are two flowers that positively do best when transplanted during August–September. These are

The Oriental Poppies
and
Pyrethrums or Painted Daisies

Eight distinct varieties of Oriental Poppies are available while the Pyrethrum are offered in a wonderful mixture.

Please write to-day for our free catalogue, offering an abundance of other valuable fall planting suggestions

The Wayside Gardens Co.

Largest Growers of Hardy Plants in America

Mentor. Ohio.

E. H. Schultz, Pres. J. J. Grullemans, Sec. Treas.

PEONIES OF QUALITY

Owing to the lateness of the season WE WERE NOT ABLE TO EXHIBIT AT THE DES MOINES SHOW as we had intended. A WEEK LATER, however, WE HAD A MULTITUDE OF BLOOMS AND MADE AN EXHIBIT AT THE MASSACHUSETTS HORTICULTURAL SOCIETY PEONY SHOW AND WERE AWARDED THE FOLLOWING IN VERY KEEN COMPETITION:

AMERICAN PEONY SOCIETY'S SILVER MEDAL for BEST COLLECTION of not over 100 varieties of double Peonies.

PRESIDENT'S CUP for BEST DISPLAY of Peonies.

FIRST PRIZE FOR BEST DISPLAY OF PEONIES rating at 8.5 and over.

SILVER MEDAL for LARGEST and BEST COLLECTION in the show.

FIRST PRIZE FOR BEST 12 SINGLES.

FIRST PRIZE FOR 6 BEST WHITES, one flower of each variety.

FIRST PRIZE FOR 6 BEST LIGHT PINKS, one flower of each variety.

THIS EXHIBIT WAS without question ONE OF THE BEST ever staged IN THE HISTORY OF PEONYDOM and was well worth travelling many miles to see.

We know that the CHERRY HILL STRAIN OF PEONIES WILL GIVE you COMPLETE SATISFACTION and we look forward with pleasure to supplying you some of our CHOICE STOCK this fall.

CHERRY HILL NURSERIES

(T. C. Thurlow's Sons, Inc.)

West Newbury Massachusetts

Catalogue on request

Illustrations above and below represent small parts of our Peony fields

Choice PEONIES

You intend to have some of the real good ones some time.

Permit us to remind you of the fact, that you will obtain the best results if you plant them in September, and you should lose no time in placing your order. Do it to-day, from the following select list.

	EACH		EACH
Baroness Schroeder	$1.50	Madam Jules Dessert	$6.50
Charles McKillip	3.00	Lady Alexandra Duff	6.00
Chestine Gowdy	3.00	Le Cygne	15.00
Claire Dubois	1.00	Longfellow	7.50
Eugene Verdier	1.50	Mrs. A. G. Ruggles	7.50
Fanny Crosby	2.00	Luetta Pfeiffer	15.00
Francis Willard	3.50	E. B. Browning	10.00
Phoebe Carey	9.00	Rachel	1.00
Adolph Rosseau	1.50	Richard Carvel	5.00
Harriet Farnsley	2.00	Sarah Bernhardt	2.50
Henry Avery	7.50	Sister Annie	1.00
Jubilee	7.00	Solange	6.50
Judge Berry	7.50	Susan B. Anthony	1.00
Karl Rosenfield	2.00	Therese	5.00
La France	7.00	Tourangelle	6.00
Venus	1.00	La Fee	12.00
Wm. Penn	1.00	Livingstone	1.00

Every plant will be a large 3 to 5 eye division, with plenty of roots that will produce results in the shortest possible time.

Every plant *guaranteed true to name* and *POSTPAID* to your door in the United States.

Will be glad to mail you our complete list of other good varieties.

The Pfeiffer Nursery

Winona **Minnesota**

WE MAINTAIN an unusually large list of herbaceous plants for the rock garden. We also have just as complete a list of evergreens, trees, flowering shrubs, and vines. We make a specialty of no one thing, but do endeavor to grow a complete list of hardy ornamental nursery stock. A copy of our "Handbook of General Information on Trees and Hardy Plants" will be gladly mailed on request.

THE BAY STATE NURSERIES
W. H. Wyman & Son, Proprietors
NORTH ABINGTON,
MASS.

To keep grounds beautiful—

Use a Breck's Irrigator It simplifies watering

FOR lawns, flower gardens, vegetable gardens, shrubbery, golf greens—one efficient and practical sprinkler for them all!

Breck's Irrigator (patent applied for) is one of the most versatile watering devices known. . . . Briefly, it is a length of highest grade hose fitted with solid brass spray nozzles . . . so flexible you move it easily from place to place and adapt it to any kind of watering. It will lie flat along a hedge or coil about an evergreen and give it a gentle, thorough, drenching shower. No moving parts to get out of order. Nothing to take apart—you roll it up just like a piece of hose. Sprays with even a moderate pressure.

Comes in 50-foot lengths at $25.00. 25-foot lengths may be bought for $15.00 by special order. Shipping charges prepaid east of the Mississippi; sent express collect west of the Mississippi. Sold also through 500 Breck Stores in New England.

Send for descriptive circular Y
"50 FEET OF 100 PER CENT SERVICE"

JOSEPH BRECK & SONS
59 North Market Street, Boston, Mass.

Start Your Old-fashioned Garden NOW!

The delights of a beautiful hardy border are within easy reach of all. Old-fashioned garden favorites as offered below are easily grown from Seed! And by sowing these seeds during July-August you will have by fall stocky plants, ready for spring bloom!

Twelve Favorites for Everywhere

Liberal Dreer packets holding high vitality seeds bound to grow if sown correctly:—

Dianthus (Pheasant's-eye Pinks); **Sweet William; Gypsophila** (Baby's Breath); **Sweet Rocket or Dame's Violet; Digitalis** (Foxglove); **Golden Coreopsis; Agrostemma** (Rose of Heaven or Mullein Pink); **Delphinium** (Blue Butterfly Larkspur); **Oriental Poppy; Lychnis** (Jerusalem Cross); **Gaillardia** (Blanket Flower); **Aquilegia** (Columbine).

A packet each of the above collection of 12 splendid Hardy Perennials, postpaid, for . . . . **50c.**

Dreer's Midsummer Catalogue

continues to serve homegardeners as a reliable source of information on what to do in the garden NOW! Offers Seeds for present sowing, Bulbs for fall planting, pot-grown Strawberry Plants, etc. If you are not on our mailing list, please ask for your copy.

HENRY A. DREER
1306 Spring Garden St.
PHILADELPHIA, PA.

Evergreens Like These from HICKS NURSERIES

are described and illustrated in *Home Landscapes 1924,* a most delightful book. It makes the average man and the millionaire smile with joy.

Miss Amy Cross writes about a famous Long Island garden, and Mr. Hicks tells of "A Successful Large Garden" and "A Successful Small Place," the latter only one-half acre in size. Hundreds of the best plants, including new, unusual and rare kinds for garden decoration, are described and illustrated. Send for a copy; it is free.

Meyers Junipers

A wonderful new Juniper for foundation plantings. Plant it on the sunny side of the house to feather down the taller evergreens and add a bit of contrasting color, for its steel-blue and red foliage will contrast well with the darker background.

1 ft. specimens $3.00, $27.50 for 10
2 ft. specimens $6.00, $50.00 for 10

Planting All Summer

is as easily and successfully done as spring and fall planting when Hicks trees and shrubs—grown and prepared for moving at any time—are used. Prove it out by trying it this summer.

HICKS NURSERIES
Box M, Westbury, Long Island, New York

Daffodil Days at "Tulipdom"—Spring 1924

There are Just Ten Days Left!

Up to August 1 (sharp) we can accept "import orders" for Daffodils, Tulips, Hyacinths, and other Dutch bulbs. The next day you will have to be satisfied with bulbs we receive here at Oyster Bay, *in bulk.*

Now, the principal points in favor of import orders are

(1) **the bulbs are handled only once in Holland and that's best for the bulbs.**

(2) **the rarer sorts are seldom available in bulk, hence we handle but few at Oyster Bay.**

So, please write right now for Catalogue giving you all the facts plus figures about

"Bulbs In a Class *All Their Own*"

Bulbs of the type and kinds that win for Zandbergen customers the blue ribbons, year after year; bulbs that bloom true to name or your money back; bulbs, in short, that are sent out with the highest confidence in the world that they make us friends and permanent customers—if you are interested in such bulbs, send for the free catalogue TODAY.

ZANDBERGEN BROS., *"Tulipdom"*
Oyster Bay, Long Island, New York
Nurseries at Valkenburg, near Leiden, Holland

LOTOL

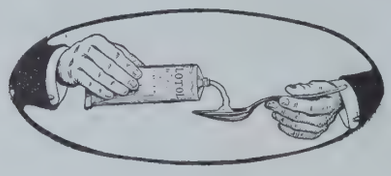
REG. U. S. PAT. OFFICE

The Complete, Concentrated Insecticide in Jelly Form

Kills Plant Lice

Used *before* the pests appear it will keep them out of the garden entirely or well under control. Lotol can be used freely and frequently, as it is so economical.

No Fuss



No Muss

A teaspoonful makes a gallon

The use of LOTOL is simple! Squeeze some LOTOL into a gallon of water, stir and spray. No addition of soap required. It spreads, sticks, cleanses and sanitates, making possible healthy, normal existence for all plant life.

LOTOL is sold at the better horticultural supply stores. If your dealer does not offer it, a trial tube will be mailed upon receipt of 45c.

LOTOL LOTOL LOTOL LOTOL LOTOL LOTOL LOTOL LOTOL LOTOL

Garden Chemical Company

Sole Manufacturers of MELROSINE and LOTOL

Park Avenue & 146th Street New York, N. Y.

"How clean and healthy your stock looks!"

This is a common exclamation from those who visit our Nurseries. Indeed, the State Inspectors marvel at the freedom from insects and disease manifested by Rosedale Stock. Evergreens may be safely planted in early September. September is the ideal month for planting Hardy Perennials. By aid of the September rains they become thoroughly established and ready to give abundant bloom the following Spring. Our supply of Delphiniums, Irises, Peonies, Phlox, etc., was never better.

Our Landscape Service

has helped many to beautify their homes during the past quarter century. If you need more assistance to solve your planting problems than is contained in our helpful literature, you would do well to ask for our terms. Visitors welcome, except Sundays. On the Sawmill River Road, 1¼ miles north of Westchester Co. Alms House.

Acres of Peonies

Nearly 200 varieties, all carefully selected, embracing a full range of colors, a long blooming period and a variety of forms—single, double, etc. Many are fragrant. Rosedale Peony Plants are heavy one, two and three year specimens. Planted this Fall, they will bloom next Spring.

Autumn Booklet

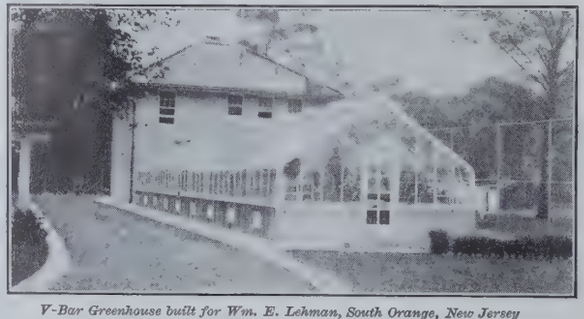
Quotes moderate prices on our complete line of Trees, Shrubs and Roses. Gives six good reasons for Fall planting. Tells just what you want to know about Peonies and other Hardy Flowers. Lists all sorts of Nursery Stock. If you have not yet received a copy, write to-day.

ROSEDALE NURSERIES

"Outfitters for the Home Grounds"

Box A TARRYTOWN N. Y.

LUTTON V-BAR QUALITY GREENHOUSES



V-Bar Greenhouse built for Wm. E. Lehman, South Orange, New Jersey

Compare All Others with a Lutton!

For economy's sake alone, it will be well worth while to compare carefully, point by point, the details of construction of Lutton Patented V-Bar greenhouses with other greenhouses you may have in mind. Don't be misled by unproved claims of superiority.

See and Judge for Yourself

A greenhouse, to give permanent satisfaction, must be built *absolutely right in the first place.* Extraordinary productiveness, a scientific, efficient heating system, low cost of maintenance, and an unusually attractive and inviting appearance, make the Lutton Patented V-Bar greenhouse the choice of those who insist on knowing the real facts.

Write for complete information and list of Lutton owners in your locality. You will never regret our advice to

ASK A LUTTON OWNER

BVR TRADE MARK REG. U.S. PAT. OFF. GREEN HOUSES PAT. JAN. 2, 1917

Wm. H. LUTTON & COMPANY, Inc.

266 Kearney Ave. Jersey City, N. J.

It's Digging Time at Gardenville

Early orders get the cream of the crop

American Bulbs—Superior Quality

	Each	Per Doz.	Per 100
Spanish Iris Bulbs—mixed		$ .60	$4.00
Spanish Iris Bulbs — Named varieties		1.00	6.00
Dutch Iris Bulbs—mixed		1.00	7.50
Dutch Iris Bulbs—Named varieties		1.20	10.00
English Iris Bulbs—Wonderful Blue		.75	5.00
Siberian Iris Bulbs—Deep blue only.....		.50	3.50
Lilium Candidum or Madonna Lily Bulbs	.25	2.50	20.00
Regal Lily Bulbs.....	.50	5.00	40.00
Grape Hyacinth Bulbs,—Heavenly Blue—**25 Bulbs, $1.00**			3.00
Wood Hyacinth, Scilla—Porcelain Blue—**25 Bulbs, $1.00**			3.00

Write for all my lists, especially Narcissus, Jonquils, Daffodils.

GEORGE LAWLER

Gardenville

Tacoma -:- -:- Washington

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Lucky the midsummer gardener whose grounds run down to meet the water as here at the home of Mr. G. A. Schieren at Great Neck, L. I.; Ruth Dean, Landscape Architect; Aymar Embury II, Architect

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LEONARD BARRON, *Editor*

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The Gospel Truth About Peonies

That's what I am tempted to call my "Unvarnished Facts" edition of "Tips and Pointers for Beginners with Peonies." It's *neither* a treatise nor a catalogue but an "honest-to-goodness" experience story told in plain English about the hundred varieties of Peonies I grow.

Too expensive a book for broad distribution. Just send me 25c for it, which covers less than half of cost per copy. If, after reading it, you do not feel it's worth its cost, return it and I'll reimburse you. Otherwise you may deduct 25c on first order.

HENRY S. COOPER

Peony Fan

KENOSHA WISCONSIN

Important Announcement to

Peony Lovers

Having received several letters from peony lovers expressing their regrets on learning that I had sold my peony business, I desire to inform all interested that the sale referred to in the Horticultural press, etc., was made by the Peterson Nursery of Chicago, a business with which I have never had even the remotest connection.

I not only have *not* sold my business, but, on the contrary, after a lifetime of devotion to the peony, my love and enthusiasm for this flower remain undiminished, and I am, I think, better prepared to serve your peony needs this Fall than ever before. Both my one-year and two-year plantings are on ground virgin to this flower and promise to yield roots this Fall up to, if not exceeding, the very best that I have ever raised. They will, I am sure, maintain the supremacy for which "Peterson's Perfect Peonies" have so long been famous.

"The Flower Beautiful" (for 1924), the title of my peony catalogue, published annually without a break for twenty years, will be ready as usual about August 1st at which time a copy will be mailed to old customers and to all others who may apply.

GEORGE H. PETERSON

Rose and Peony Specialist Box 50 Fair Lawn, N. J.

GAY COLORS FOR LIFE

You can have a life-long supply of flowers beginning next Spring by planting a garden of our Hardy Perennials now. Such a garden, though a permanent distinction to your home, costs far less than most domestic luxuries.

IMAGINE: Tall spikes of Nature's truest blue—Delphiniums. Stately spires of amber, coppery-orange, bright rose—our Regal Lupines. Irises in lavender, purple, and yellow. Huge Japanese Irises in mauve-blue, mahogany-red, and light violet. Superb Peonies. Dainty Columbines in blue and white, and red and yellow. Great, flaming Oriental Poppies. Gay Phlox. Blue Salvia. Painted Daisies. Canterbury Bells. Bleeding Heart. Gentian. Foxglove. Baby's Breath. Rosemallow. Statice. Wake Robin. Old-fashioned Heliotrope.

Complete Hardy Garden Borders with Blue Prints

Our experience with perennials has shown us many beautiful combinations. We have incorporated them in several collections that will give complete, balanced borders for use against walls or shrubbery, accompanied by blue prints showing exact placing of plants to scale. They are designed for a space of 20 feet by 6 feet. For instance,

Border collection No. 1, 137 plants, $20
Border collection No. 2, 177 plants, $30

WE SUBMIT PLANS FOR INDIVIDUAL REQUIREMENTS DURING THE LESS BUSY SEASONS. WRITE FOR CATALOGUE, ALSO AUTUMN SUPPLEMENT AUGUST 1ST.

F. H. HORSFORD, CHARLOTTE, VT.

The Garden MAGAZINE

Vol. XXXIX, No. 6 — *August, 1924*

Frances Benjamin Johnston, Photo

"I WILL SING OF THE BOUNTY OF THE BIG TREES,
THEY ARE THE GREEN TENTS OF THE ALMIGHTY,
HE HATH SET THEM UP FOR COMFORT AND FOR SHELTER."
Henry Van Dyke

For centuries trees have been interwoven with the life of mankind as religious symbols, as symbols of domesticity—in New England the knarled and friendly Apple, in California the Live Oak throwing hospitable arms across this outdoor living room and patterning its pavement with amber light and shade at the Santa Barbara home of Mrs. Robert Cameron Rogers

Eugene J. Hall, Photo.

"THE LOTUS STRAYED THROUGH CENTURIES AND LANDS
LIFTING COOL WHITE CUPS OF PEACE
ABOVE STILL POOLS OF INDIA,
GOBLETS OF ALABASTER
FROM THE SHEETED GOLD OF CLEOPATRA'S SANDS."

Amer. Pindar

"The charming ensemble of this tiny water garden, formed by extending and excavating a natural pool, is largely due to its unconventional and informal outline and arrangement," writes Mrs. Florence Taft Eaton. "Note the effective use of irregular points of limestone jutting from the water. Water-lilies (Nymphaeas) star the surface of the pool, partially shaded by Nelumbo (N. nucifera alba grandiflora), one of the most easily cultivated and picturesque of aquatic flowering plants with its bluish-green foliage, wax-like, regal, delicately perfumed blossoms, borne high above the water, and its interesting pepper-pot seed vessels. Native Pickerel-weed (Pontederia cordata) supplies a strong color note, the vivid sky-blue blossom-spikes contrasting beautifully with the pure white of the Lilies, while feathery striped Sweet Flags soften the whole"

Arthur I. Meiggs, Photo.

"GRAY ROCKS ARE KINDRED OF THE MOULD
THAT BRINGS MY SEED TO FLOWER,
COMPANIONS OF THE BITTER COLD
AND OF THE SUNBRIGHT HOUR"

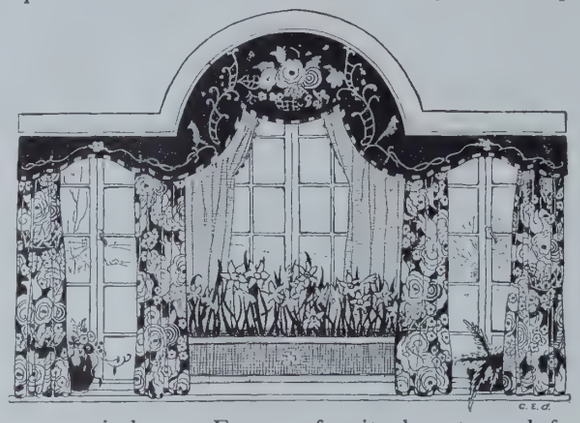
Hilda Morris

Fitness is so obviously a fundamental in the making of anything from a teaspoon to a palace that even to mention it may seem in the nature of an anticlimax, but, after all, it is the rather reckless disregard of fitness that gives us so much bad furniture, so many offensive houses nowadays. The beauty of this Pennsylvania home rests primarily upon the sense it conveys of belonging to the land, of being in accord with its own time and place, simple and enduring like the stones of the field which went into its making, strongly linking dwelling and garden. Designed by Mellor, Meigs & Howe for Mrs. John F. Meigs II

A WINDOW FULL OF DAFFODILS

RUTH GIPSON PLOWHEAD

A Potful of Posies for Christmas Time by Planting Bulbs in August—Selected Varieties that Keep Winter Window-boxes Gay Till Spring Comes Again



EACH year I try to have some different fad for my window-garden. One time, when it was Daffodils, I intended to buy but a few, but all the catalogued descriptions were so alluring I could not well choose. One praised one variety so highly, while another favored some other, that in the end I decided to buy a dozen different sorts and grow them under the same conditions to see which pleased me best for my windows. Four bulbs each of the following were purchased: Henry Irving, Victoria, Grandee, Telamonius (Single Van Sion); Double Van Sion; Glory of Leiden; Emperor; Empress, Madame de Graaff, Maximus, Albicans, Golden Spur, Giant Princess—a "baker's dozen," you see.

The results, which would undoubtedly vary with different soil, care, and room temperature, were most interesting. I found out which responded best to my care, and how I could have a long season of Daffodil bloom by choosing an early and a late variety and bringing them to the light as I chose.

The bulbs were potted immediately on arrival in September, watered well, and placed in a cool cellar—four bulbs in each five- or six-inch pot. On January 15th they were brought into an unheated upstairs room, having had about sixteen weeks for rooting. Three weeks later (on February 5th) the pots were put in a window-box in a sunny window. This of course, is not the desirable way to do, as some of the plants showed no sign of buds, and took up space for weeks, which could well have been given to something else; but I was experimenting. The ideal time to place Daffodils in your show window is just before the buds burst open.

Henry Irving and Single Van Sion were the first to flower (February 26th) just three weeks from the time they were placed in the warm window. Both were good.

Albicans and Golden Spur followed in three days. Albicans, a strawy white on drooping stems, proved rather poor. Golden Spur was disappointing at first but almost redeemed itself before it faded.

Giant Princeps showed its colors on March 3rd. I rate this as fair.

The next day (March 4th) Victoria bloomed. This seems to hold the place of honor in my record, both for its beauty and for its delightful fragrance. The flowers were large, daintily colored, and the stems stiff and long.

Two days later, Double Van Sion bloomed. This has always been one of my favorites.

Emperor and Empress blossomed quite fittingly on the same day, the former being especially fine, of great size, firm substance, long stems, with a bright golden colored trumpet, and petals slightly lighter.

Madame de Graaff is a lovely ivory white, For some reason I failed to write its date of blooming and also that of Glory of Leiden, which, somehow in my pot culture, failed to come up to expectations, though I know it to be a fine flower.

Grandee was the last to bloom, starting to blossom on March 20th. I report it one of the very best, possibly next to Victoria. Maximus failed to flower at all.

This season of blooming could have been extended somewhat at both ends by earlier potting and quicker forcing. Henry Irving or Victoria planted in August might have been ready to nod a gay greeting to the Christmas tree, while the latest bulbs could have been held in the cellar to bloom for a late April Easter or a May party.

All of these Daffodils were planted outdoors when through blooming. Some of them did not live, but Telamonius, Van Sion, Emperor, and Golden Spur have multiplied and become very beautiful.

STRAWBERRIES FOR NEXT SEASON

OF COURSE you want them! And you can have Strawberries next year in moderate quantity even though you haven't a plant on the place this moment.

It is quite practical to plant Strawberries in late summer or in early fall so that they get a month of growth before cold weather comes. Then they are almost as good as though the plants had been growing in position all through the present season. But to get this result you must use potted plants. That means a runner of this season that has been rooted in a pot so that it can be knocked out of the pot and the ball moved and planted in the new position without any real disturbance to the roots or shock to the plant. Such plants, as sold, are really quite small—but that's of no moment; its their vigor that counts. Of course, if you have Strawberries, you can transplant strong runners from the beds, lifting them with soil attached and to all intents and purposes they will behave just like potted plants from a distance.

The ubiquity of the Strawberry is sufficient testimony to the fact that it is not particular as to soil. It will grow almost anywhere, except in pure sand or muck. Even the sand can be made to produce a good crop if sufficient manure is given and that's the keynote to success—plenty of available food and water to help the growth,—but the soil must be drained. "Wet feet" make sick Strawberry plants. Therefore choose for your Strawberry patch a plot of ground in which the water does not collect all winter. The roots must have humus, which means rotted manure. A layer of three inches of this is not too much to dig in.

Choose a spot that is already cultivated. Don't plant Strawberries on freshly turned sod, because of the June bug. Plow, dig, cultivate, harrow, and in fact do anything and everything that is general to make the soil deep, mellow, and put into good tilth. Make a Strawberry bed just as though you were making an Onion bed, and you will have good Strawberries.

In the North, spring planting is usually relied on by commercial growers, but in the home garden you can do almost anything. You can plant Strawberries now, pot grown plants, of course, and harvest fruit nine months later. Isn't it worth while?

The pioneer Strawberry grower for the New York market used to say that you could measure the size of your crop by the amount of manure you put into the bed. Remember that. LESLIE HUDSON

IRISES FOR EVERYBODY

AGNES FALES HUNTINGTON

Members of the Bearded Group that Compel Attention by their Decorative Qualities in the Garden — Outstanding Varieties to Fit All Purses

TO PLANT Irises now, before the heavy fall planting work begins, is practical wisdom indeed, not only because time is thus gained but because the garden is still a going concern and the herbaceous border's parts can be seen in relation to one another. Also, your memory of the present season's picture still lingers vividly enough to serve as a trustworthy guide in making additions.

And the Iris is easy to plant, remembering always not to really bury the creeping stem—it likes to be half in, half out. In truth the Iris is not a "crowd" plant, perferring its own space clear and free to light and air. It wants water in its growing period, but otherwise can get along without much attention.

Frankly, I do not love Irises as I love Tulips and some other flowers. They are such fleeting things, and perfectly provoking as cut flowers. But of all the flowers that grow, I think they are the most superbly decorative in the garden. And they are fairly easy to grow, and small enough to permit having a great many different kinds in even a tiny garden, so that it is impossible not to be stirred by the great surge of interest in their development, and to want to take at least a little part in it.

Hardly any flower is being quite so developed nowadays as the Bearded Iris, though Dahlias and Gladiolus compete hotly. The great raisers are doing splendid work, and everywhere in this country and abroad the smaller amateurs are entering the field and becoming experts—and some of the best Irises come from them. Careful scientific breeding, strict attention to record, mark this work. Our American Iris Society has done much to clear the air by its "Symposium" with rating of all well-known varieties, and perhaps even more by its registration of new names, and discouragement of too-much-alike varieties. There are still many unsolved problems in Iris breeding (as discussed by Mr. Sherman Duffy in the June G. M., page 291), but even where causes are not well understood, results may be excellent. And the game is not too long for patience, because Iris seedlings bloom in a fairly short time.

The number of Iris varieties is absolutely legion, and many of the great ones are so scaringly high in price that the average gardener has not even seen them yet, and will not for some years to come; and this in spite of the natural rapidity of increase in the plant. But let us look over the ranks of the best old kinds, and a few of the new, that have come to be fairly well-known and not impossible for the ordinary person to buy.

Twelve Lovely Blue-Lavenders

THE very loveliest of all to me are the blue-lavenders. The old PALLIDA DALMATICA still ranks high, but much better is the selected form, PRINCESS BEATRICE. Many fanciers who know the world's best say there is nothing to beat that old and inexpensive variety. There is much confusion in catalogues and many Iris raisers call the two forms synonymous—which they are not. The American Iris Society marks a sharp distinction between the two, rating Pallida dalmatica at 8.8 and Princess Beatrice at 9.5. The latter is perfect in

WHERE IRISES THRIVE IN HAPPY INFORMALITY

Curiously enough, the Iris seems to lend itself equally to naturalistic or formal uses, and thrives in many localities even under rather severe winter conditions as here in the garden of Mr. John L. Rea near Plattsburg in the northern part of New York state

color, form, and habit (though I believe both varieties are subject to root rot). Its color is a very beautiful pure lavender on the blue tones. The smallest collection should include it—perhaps even a collection of only one.

LEONIDAS is a lovely thing in the garden. Its texture is a bit flimsy, and the falls hug the stem rather too much for grace. But it makes a flowery mass of pure amethyst that is a joy to behold. Other very lovely and free-blooming blue-lavenders, a little pale in tone, are CELESTE and CAMELEON. All are old and inexpensive varieties.

Quite otherwise are LORD OF JUNE (pictured on page 293 of June, 1924, G. M.), MLLE. SCHWARTZ, and MRS. WALTER BREWSTER, which I name in the ascending order of price—and perhaps of beauty. I am not wholly in love with Lord of June, its texture is too soft for the great size of the flower. But it can be spectacularly beautiful. Mlle. Schwartz is such a glorious flower that after seeing it once, I promptly and extravagantly ordered a root. It has the name of being difficult, and my small plant rather promises to bear out that reputation. I shall grieve, but not be surprised, if it is not here to greet the spring again. Yet in the near-by garden where I saw it, it grew and bloomed luxuriantly. It will, I fear, be a long day before the divine Mrs. Walter Brewster graces my garden, for it is rather staggering in price. But let us wait and watch the catalogues till this blue beauty comes within our reach. It struck me as the bluest of the true lavenders that I had seen.

I hardly know whether or not to recommend CATERINA. As Mr. Phillpotts has so wisely told us, if a flower is beautiful and long in the market, and yet rare, the chances are that it has a serious fault or two. Caterina's fault is not in her beauty, she has enough and to spare of that, but she is undoubtedly "difficult." They say she likes to live in California, but we can't quite move there just to please her. Yet I know she can be gracious in New Jersey, for in that wonderful garden where Mlle. Schwartz grew so happily, so too did Caterina, and the owner of the garden told me she had no trouble with this variety. There are gardeners who know how to coax a temperamental plant!

All of these Iris have much blue in their lavender coloring, especially at early dusk, which is divinely becoming to them and gives them an almost azure tone. But I know three varieties that I should call closer to a true blue even than any I have named. BLUE JAY gives a good deal of that effect, in a dark rich tone. The individual flowers are rather small, but it is tall and free, and makes a fine color mass in the garden. The lighter-hued CHESTER J. HUNT is even lovelier. I am always thrilled by the beauty of its almost azure standards. The falls are deeper and less blue, and the color is laid on unevenly, in a lovely clouded effect. This, too, is not up to modern standards of size. Both of these are old and inexpensive varieties. Not so is the superb CRUSADER, which I believe ties with Princess Beatrice as the Iris I should choose if I were permitted to own but one. Some gardeners find Crusader lacking in rude health, others seem to have no trouble. Nobody finds it lacking in beauty. It is fairly new, and rates 8.7. Probably it would rate much higher if it could always be counted on for vigor. In my garden it grows more strongly than any other variety. It is tall, fairly free-blooming, huge, with the flowers well arranged on the stalk. It has the shape I prefer, with rather horizontal falls; and the color has rich blue tones, with a hint of rose in the falls.

Among the Royal Purples

I BELIEVE there are not many first-class deep purple Iris, either on the blue or the red order. The old KOCHII and KHARPUT are often praised, but I do not want them. I love Kochii's black velvet buds, but the small red-purple flower lacks interest. The redder Kharput is better in color, but too many Irises lack firmness in the texture of their all-too-fleeting flowers, and I think we should look to an improvement along that line, wherein Kharput errs badly. I have nothing but praise for PURPLE KING, an old and very inexpensive variety, that belongs to the Germanica section and blooms earlier than any of the other varieties I am naming. It is an Iris without a fault—color, shape (with particularly long falls), height, vigor, freedom, leave nothing to be desired. And here we have a texture so especially good that I remember seeing, in Miss Halloway's garden, flowers of this variety stand erect and firm after days of rain that had ruined the younger flowers on other varieties near by.

Among the newer Iris there are a few dark kinds of great beauty. I do not know LENT A. WILLIAMSON well enough for any comment, but SOUVENIR DE MME. GAUDICHAU is one of the inner circle. It is a superbly shaped deep purple; and although not very free-blooming when I saw it (though I believe it generally is) I admired it so greatly that I hastened to secure a root, for that color is rare, and very desirable as a contrast to the lavenders.

For those should-be-economical gardeners who have more sense than I, there are some fine dark varieties that cost much less. PARC DE NEUILLY is a beautiful thing, not so fine as Mme. Gaudichau, no, certainly not, but a big upstanding flower of rich deep purple. And although I personally am not well enough acquainted with ARCHEVÊQUE to recommend it, I have much confidence in the judgment of Mr. Sturtevant, who praises it as a telling bit of rich color.

Two-toned Varieties of Distinction

AMONG the group known as bicolors, with standards lighter than the falls but the same general coloring in both, there are some lovely flowers. Perhaps my favorite is PERFECTION. There are bigger Iris (though this is not especially small by any means), but if you waive the question of size this is an Iris without a fault. The coloring is rich and pure, lavender standards and purple falls, both very blue in tone and of velvety quality. The shape is lovely, with the horizontal falls that I like; and the arrangement of flowers on the stalk is most pleasing. It is exceedingly vigorous and free, and blooms well the year after planting.

SPECIMEN PLANTING OF TALL BEARDED IRIS

"Of all the flowers that grow," says Mrs. Huntington, "I think they are the most superbly decorative in the garden." Certainly their beauty of foliage and form is seen to best advantage in isolated groupings like this

IN A FORMAL GARDEN

With an inherent princely splendour of mein, the tall Bearded Iris fits easily into the most elaborate surroundings. Garden of Mr. J. Amory Haskell at Red Bank, N. J.; C. W. Leavitt, Landscape Architect

OTHELLO is a dear flower, the same coloring as Perfection only much deeper; the flower is a good bit smaller and less finely shaped, but its extraordinary depth of color makes it very lovely in a mass of planting. I always delight in Mrs. McKinney's long row of this Iris, and she told me she dearly loved it herself. CORDELIA I have heard called so similar to MONSIGNOR, and inferior, that it merits discard. I find it neither similar nor inferior. Monsignor is a striking thing of a deep hot purple that catches the eye at once; but Cordelia is the greater beauty of the two, in rich and subtle tones of blue-lavender and rose-purple.

I do not know just where to class ALCAZAR, but it is generally called a bicolor. It is rather new, though not much more expensive than these others and rates 8.9. The standards are smoky blue; the falls darker, with much bronze at the base. The coloring would seem to imply some squalens blood. It is tall, strong, free, and shapely in the gardens where I have seen it. The new and costly LENT A WILLIAMSON is always compared with Alcazar, and most experts say it is a finer individual flower but no better for garden effect, perhaps not so good. ORIFLAMME seems to me variable. I do not always rave, yet sometimes its beauty is spectacular. It can be impressively huge with very long and drooping falls, and of a lovely blue tone. Yet I have seen it when the standards were a weak gray-blue, the growth poor and low, and the texture so flimsy as to quite ruin the flower.

Some Favorite Whites

THERE are not very many high-class white Irises seemingly. Some that are rated very high do not grow at all well in our Eastern states. I have seen few of the white Iris and none of the giants among them. Everyone knows the old, old FLORENTINA, which grows wild in Italy, and has been cultivated in gardens for hundreds of years. The flavor of poetry clings closely to it and that is a great thing for any flower to possess. It is rather lovely, but I do not care for so blue a white. MRS. HORACE DARWIN also is a very dull white. It is popular, called "*the* inexpensive white." But I would not keep mine after once seeing it bloom. And even less good, by far, is MRS. GEORGE DARWIN, whose falls are nearly covered by brown and gold reticulations. It is seldom listed nowadays.

INNOCENZA is my favorite white. It was introduced in 1854 and, of course, has long since been superseded in point of size, but I think its charm would take some beating. The rather small flowers, with flaring falls on top of tall slim stalks, have an airy grace that is delicious. And the white is of so warm a tone that in some lights it is almost a cream. All the white Irises I know have some markings at the base of the falls, but Innocenza's little reticulations of pale reddish brown are most unobtrusive. WHITE KNIGHT seems to me identical in color, but the shape is different, the falls hang instead of flaring, giving the flower a less graceful look, but one of more solid and showy whiteness. LA NEIGE is newer than any of these (only about ten years old). It is a glorified Innocenza, larger, of the same delicious cream tone, but almost spoiled by its too dwarf stature. One Iris expert declares that both White Knight and La Neige totally lack Innocenza's cream tint. Yet I thought those I saw were true to name, and all three certainly struck me as the same in color.

Personally I cannot bear MME. CHEREAU and all the other old-type plicatas. That edging of delicate lilac lines on a white ground looks merely fussy to me; and at a distance, the lilac edge fades away, and you see only what appears to be an impossibly small white petal. But

some of the newer plicatas, with only a hint of blue or lilac, are lovely. FAIRY is well worth having; and the more expensive (and said to be delicate) ANNA FARR is spectacular, orchid-like, with its very wide falls.

Color Contrasts That Delight

PROBABLY the solid colors have the greater value for garden effects; but there is great charm in those varieties that have contrasted standards and fall. I especially adore them when they have white standards and purple falls. No, not the always praised RHEIN NIXE! It is an Iris with only one fault, but that fault spoils it for me. It has vigor, height, fine size, good shape, and the loveliest tone of white in the standards; but the falls are of a dull hot reddish purple, with a silly white edge. Little THORBECK is ever so much lovelier, clouded white standards, deep pansy-blue-purple falls. And still lovelier is the taller, bigger VICTORINE, of the same coloring save that the standards are boldly blotched with the blue-purple of the falls. This very old variety is noteworthy in any company.

I look among all the lists of new Irises, in hopes of finding one of THORBECK coloring and modern size, and I wonder if it may not be found in TRISTRAM; and the disappointment of the last gardening season was that this variety, early ordered and eagerly waited for, never arrived. Almost that delicious color scheme can be found in RICHARD II, only I remember it (am I wrong?) as having a white edge to the falls; also, the only plant I ever saw was of very weak growth. In this class, though of entirely different coloring, is the lovely DALILA. It is not very tall, but its white standards are contrasted with falls of the most delicious red I have ever seen in an Iris.

Shades of Gold and Cream

VERY much do I wish that I knew the great series of yellow Iris recently put out by Miss Sturtevant (Portrait of Shekinah, the first pale yellow of pallida habit, on page 293, of June, 1924, G. M.). Such yellows as I know are mostly old and small varieties. FLAVESCENS, seen in most collections, is rather too washy for beauty. FOSTER'S YELLOW is a shade stronger in color, but it has never been an Iris of much note. By far the best yellow I know is AUREA, nearly one hundred years old. It has the loveliest possible shade of soft warm butter yellow, the shape is very good, the size fair. It is not very tall, nor especially vigorous (though I think healthy enough), but I should call it indispensable as yet. I love the two little golden-yellows, MRS. NEUBRONNER and SHERWIN-WRIGHT, and see little if any difference between them, though each has its advocates. They have the same brilliant deep color, and I think they are both rather dwarf, rather small of flower, rather flimsy of petal. Mrs. Neubronner seems to me the more shapely of the two. They both have something of the gayety of the adorable Spanish Irises. A delightful newer yellow is DAWN, so pale as hardly to be called a yellow at all, it is of that delicious warm cream tint so seldom seen in flowers. Not tall nor very big, it yet forms a lovely flowery clump.

I never cared for those varieties—brilliant as they are—that have yellow standards and crimson falls. But IRIS KING is truly a fine thing, and I have a fondness for an old and seldom-seen variety in this section, SALAR JUNG. It wears a strange combination of red-purple, white, old gold, and pure fawn. The falls never really open out, they remain nearly as upright as the standards. It is a queer vivid thing, almost as alive as an animal.

Pinks Pleasant and Disappointing

BEFORE speaking of the so-called "pink" Iris (there are no true "pinks," I think, any more than there are any true "blues"), I must say that I think the Iris makes a mistake when it tries to be pink. It has done little to be proud of in that line, and has been guilty of many hideous failures. MME. PACQUITTE and CAPRICE and WINDHAM and ROSE UNIQUE (and I think EDOUARD MICHEL, though I do not recall this variety very distinctly), are raw in tone; TRAUTLIEB is pasty. QUEEN OF MAY is grown and liked in most gardens; its lilac-pink color, not improved by a brownish suffusion, is sometimes rather lovely and opalescent at a distance beside lavender varieties. Yet there are some quite nice pinks, and one or two beauties. HER MAJESTY is a dear. It blooms in a low level sheet of color, its rose-pink flowers hardly rising above the leaves. Mrs. McKinney's new seedling, HER RIVAL, is similar, but has so much yellow in its pink that it is sometimes almost a salmon, a lovely shade that I have seen in no other Iris.

I have a soft spot for LOHENGRIN, the gift of which started my little collection, and I admire its beautiful sturdy growth; but I do not admire the color, which is not a true pink nor blue nor lavender.

There are a few lovely Irises on the palest pink tones: the blush and cream WYOMISSING, so especially free-blooming; THELMA PERRY, faint creamy pink; AURORA, similar, but perhaps a little more on the lilac tone; and the adorable DALMARIUS, pinkly pale, with lavender in its pink, that grows into such a delightful rounded clump full of bloom.

The two spectacular pinks of my acquaintance, both of which must (I think) have some of the dusky squalens blood, are ISOLINE and MAGNIFICA. I was thrilled by my first sight of Isoline, a glorious creature, wearing strange shades of tawny old rose, with long drooping falls. The newer Magnifica rates even higher. It is perfectly huge, and of similar color to Isoline, but deeper, the standards rose, the falls soft magenta. It has the same long drooping falls. I could not say which I prefer, and those who find the price of Magnifica prohibitive may be very happy with Isoline (in spite of her reputation for rather uncertain bloom).

A Galaxy of Barbarbic Beauties

I HAVE come to my last section, the dusky strange subtle Squalens varieties. I suppose these could be compared with the Breeders among the Tulips, but they have a warmth that the Breeders lack. ARNOLS, JACQUESIANA, PROSPER LAUGIER, are a trio of somewhat similar coloring. And I understand that the new AMBASSADEUR is like them, though far finer than any. Arnols is the purplest of the three, and perhaps the least good, though all are beautiful. Jacquesiana, in coffee, maroon, and crimson, is the reddest. Prosper Laugier is, I should say, the darkest. It, too, wears coffee-colored standards washed with a deeper tint, but its falls are reddish black instead of crimson.

NIBELUNGEN grows into a very tall flowery clump; but its color, though soft and rich, is a little dull. And QUAKER LADY, too, I think, just misses freshness and purity of coloring. Two Irises there are in this group that fascinate me by their brilliant queerness. PFAUENAUGE (or PEACOCK'S EYE, if you prefer to use a translation), is a strange and lovely blend of smoky old gold and reddish plum, with blue lights. But it is small, ill-shaped, and poor of growth, a combination of faults that its color cannot quite redeem. ELDORADO is very much better. Neither shape nor growth are especially good, but they are fair; and its coloring is so barbarically beautiful that you cannot pass it by unnoticed: soft shades of bronze and heliotrope, with pink and blue lights; the base of the petals bronzy gold, spotted and streaked with purple; and the style arms pure old gold, with a pale purple ray up the center. It is a flower that is striking at a distance, and that well rewards close inspection.

I had thought to end with a little list of the best varieties out of the above-named for the novice to buy, in starting a small collection. But it is all so much a matter of taste, of favorite colors, even of pocketbook. He can hardly go far wrong in any of these. One strong point for the Iris is that its planting season is now just as well as in spring.

IF YOUR LAWN NEEDS SEEDING

MANY grasses reach maturity in the early fall and re-seed themselves where they stand, indicating that the fall is their natural seed time. This seems to hold good for lawn grasses as well and fine lawns are frequently established by fall seeding. Also the soil can usually be put in better shape in the late summer or early fall than is possible in the spring. The fall rains aid in giving the grass a start, so that by spring the lawn is already established.

The seed analyst at the New York Agricultural Experiment Station warns against the purchase of cheap mixtures which are not subject to the provisions of law, as many of these have been found to contain weed seeds and chaffy, inferior grass seed. Two parts of high grade Kentucky Blue-grass to one part Red-top is recommended. One pound of White Clover may be advantageously added to each 10 pounds of grass seed. The mixture should be seeded at the rate of 1 ounce per square yard for a new lawn and ½ ounce per square yard of old lawn.

INFORMAL LINENS FOR THE COUNTRY HOME

AMELIA LEAVITT HILL

The Growing Popularity of Outdoor Living Brings New Styles of Linen for Luncheons on the Sun Porch, Tea in the Garden, and Other Informal Occasions

IN CONTRAST to the exquisite fineness so long regarded as a necessity by the careful housewife, the newest table linens of to-day are of the heaviest materials coarsely woven, but so well made and embellished with such fine embroidery that they are quite as attractive as the finer linens and damasks used to be.

Perhaps this is due in part to the growing popularity of outdoor life and to the demand for table "fixings" adapted to the outdoor dining room as well as to that within. Perhaps it is due to the increasing informality of every day life. For as a matter of fact, the dinner table remains an exception to this new rule, and there exquisite linens and damasks still hold their own, as is suited to a period of the day when outdoor life is no longer possible. But for luncheon tea, or that variable meal, Sunday night supper, the new informal materials, as they may be called, are exceedingly popular, both for indoor and outdoor use. While color is called into play in table decorations far more than it has been in the past, it has not to any noticeable extent been introduced into linens; the modern table is colorful, but the effect is produced by colored decorations; as a rule the background of the picture is white or cream.

One notable and attractive exception—if it be an exception, since even here the groundwork is not affected—is a novel set consisting of tablecloth and napkins banded in color, though the groundwork remains creamy in hue. It may be had touched with green or pale yellow, one or the other of which, in these days of color contrasts, is sure to either blend into or pleasantly contrast with whatever hue is otherwise emphasized in the decorations of the table and the room. This is one of the few instances where color has been successfully used in what may be classified as the more formal services, the slight amount of it employed having kept the set well within the possibilities of

"TEA FOR TWO"

"Tea for two," or more, may most conveniently be served by the combined use of tea-wagon and small table, and, for this the Italian linens are particularly charming and come in all grades of material and all degrees of elaboration. A long runner with doylies and napkins to match gives a cool informal touch. (Linens by McCutcheon)

indoor use, as would not have been the case had more or more brilliant tints been brought into play.

The Italian linens are particularly charming and come in all grades of material and all degrees of elaboration. They often consist of a long runner for the center of the table with doylies and napkins to match. This one runner has replaced the two crossed ones which so long held sway, and which were always so hard to keep properly straight and at right angles. Even more novel is a new arrangement of two long runners placed parallel to each other on either side of the table, connected at top and bottom by a small scarf which just bridges the gap between them and which continues the design, thus filling the rôle of the useful but oldfashioned "end." These runners may be used at the edges of the table or near enough together to leave a narrow border of wood beyond them, and may fall over the ends of the table top or come exactly to the edge. The effect is excellent, especially on a long table; the short table appears somewhat fencelike surrounded by their achieved effect. When rightly used, however, they make a decided innovation in the table decorating world, and are among the most satisfactory arrangements which have appeared for some time.

Variations of these types of decoration may be worked out by the woman who likes to make her own table linens, or her less fortunate sister who does not care to undergo the expense of elaborate embroidery and heavily woven materials. Such a woman may, of course, make such embroidery at her pleasure, but her efforts will probably be turned toward work less exceedingly delicate and less wearing to eyes and nerves. For her skilful fingers many very charming possibilities exist.

BANDS OF COLOR A NEW NOTE IN LINENS

A hemstitched lunch cloth and napkins edged with the palest apple green or maize forms a delightful background for the informal luncheon or tea table, indoors or out. (Linens by Mosse)

Color may be used without a qualm for the outdoors dining room, and napkins and runners of plain gingham, blanket-stitched in a contrasting color, are cool and quaint. One such in mauve gingham stitched in apple green was easy to make and particularly charming. Cotton crêpe in orange yellow with a black monogram in Chinese characters is also simple and striking, and well adapted to tea if not to a more formal meal. Then there are the gingham sets adorned with tiny appliqué flowers in one corner—a mauve gingham iris with a checked petal or two may not sound alluring, but it really is—while cotton éponge, of the sort used for dress materials, is pretty and undergoes a tremendous amount of wear without being, apparently, at all the worse for it.

Such table "linens," if we may so designate a class which has come to include so many and such different materials, must naturally vary according to the form of festivity for which they are to be used. Obviously the heavily embroidered Italian linens and their humble sisters of gay gingham are suitable for very different occasions; but we may, in table decorations as elsewhere, recall the old saw about the advantages of simplicity, and the lover of the dainty table whose pocketbook is small may in all sincerity console herself with the reflection that charming effects lie within her power as well as within that of her more wealthy neighbor.

The tea table may be formally set, or tea may be served upon the tea-wagon, that so serviceable assistant, especially in the servantless house. The set table, of course, affords better opportunity for artistic effect, and is really more convenient, since it will accommodate the plates of sandwiches, cakes, and other titbits which make up the menu, and obviate the overloading of the tea-wagon or the employment of additional accessories, such as the "curate's delight." The set table is somewhat more formal in effect, and a formal tea is apt to be regarded by the guest as a higher compliment than the informal one. Often, especially in the case of Sunday night supper, both methods may be combined with success by using the tea-wagon for the transportation of hot viands and other such essentials, and the informally set table for actual use, since the wagon, while excellent within its limits, has decided limits when substantial food is to be served.

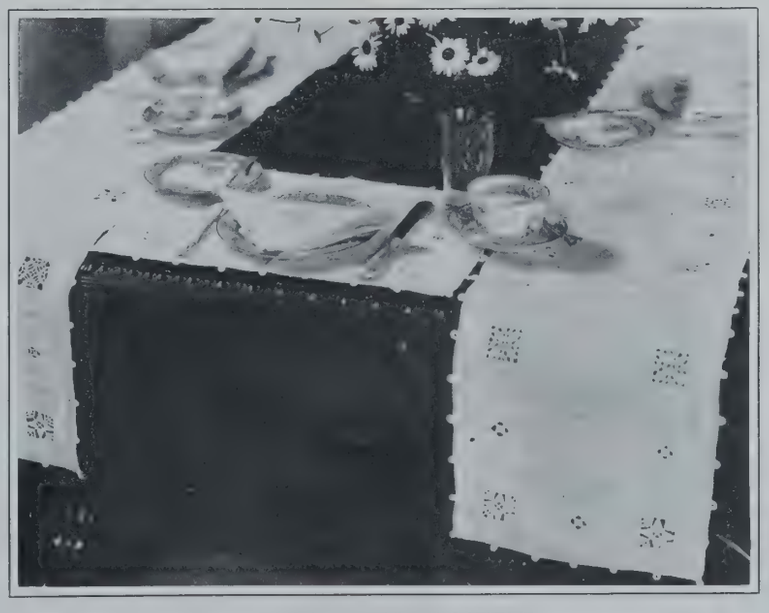
WHAT SEPTEMBER PROMISES THE READER WHO IS BUILDING A GARDEN HOME

WHETHER your garden is already established or just being made this fall you will want to set out some DAFFODILS OF THE BETTER KIND sympathetically described by *Stillman S. Berry* who has watched these "really great flowers" lift their spring banners of gold and orange and ivory for seasons past in his own garden. HOW TO PLAN A SUCCESSFUL HERBACEOUS BORDER is one of the perpetual puzzlements of gardening to the happy solving of which *Elizabeth Leonard Strang*, Landscape Architect, brings a trained judgment and much common sense. And since seeing is oftentimes believing, Mrs. Strang's text is supplemented by one or two elucidating sketch plans. Most of us have to "count our pennies" and certainly all of us want to invest them to best advantage, so if you are moving into a new home this autumn or planning to freshen up worn rooms do not miss *Margery Sill Wickware's* practical suggestions about FURNISHING ON A BUDGET nor THE WHENCE, WHENS, AND WHY'S OF WALLPAPER by *Amy Richards Colton*.

These are only a random scattering among many subjects of appeal now made possible by the additional pages of text and enlarged scope of the September issue (see page 422) which, under the expanded title of GARDEN MAGAZINE & HOME BUILDER, will supplement the customary horticultural material with topics of special interest to men and women who are creating for themselves a refuge from present-day worry and scurry, a little place of peace and beauty—a "garden home."

GARDEN INFLUENCE ON TABLE DECORATION

"In contrast to the exquisite fineness so long regarded as a necessity by the careful housewife, the newest linens of to-day are of the heaviest materials coarsely woven, but so well made and embellished with such fine embroidery that they are quite as attractive as the finer linens and damasks used to be." The tea cloth or Italian linen with napkins to match is particularly effective. (Linens by McCutcheon)



A NEW VOGUE IN LINENS

Parallel runners on either side of the table, connected by a short end piece which continues the design. (Linens by Mosse)

THE HOUSEWIFE & HER HOME GARDEN

ELLEN JEFFREY

Some Dainties for Afternoon Tea on the Lawn—Simple Canning Rules that Even the Beginner Can Follow with Sure Success

EDITORS' NOTE: The garden is, of course, not merely an outdoor plaything but an integral part of the household's life, contributing not only diversion but often a very substantial share of the day's menu. The most carefully raised vegetables, the most delicious of fruits, the loveliest of flowers may come to naught through careless or ignorant handling by those indoors. thus nullifying the gardener's best efforts and completely discouraging their renewal.

Intelligent housewifery is the garden's best ally; therefore we take pleasure in announcing the establishment of this department—The Housewife and Her Home Garden—which will include each month matters of specific interest to the "lady of the house"—Recipes, articles on Flower Arrangement, Table Decoration, Food Values in Relation to Family Health, and all the diversified activities and interests of a competently run ménage in whose success the garden is an important, if silent, partner.

TO HAVE a tea-table out under the trees or arbor—how livable that does make our gardens, these outdoor rooms of our house! More and more are we learning the rest and pleasure to be found in this friendly use of our lawns and garden spaces. And what a delight it is not only to be able to serve some special new dainty to those friends dropping in for tea, but to have that something made from the products of the garden. To see the last bit of her tempting marmalade or jelly eaten lingeringly and appreciatively brings joy beyond the telling to the hospitable hostess. And what fun to admit that you made it all yourself and that it really is not orange after all but just carrots. Yes, *Marmalade from Carrots*—just try this very simple recipe and see for yourself:

Cook until tender 8 large carrots. Remove from fire and put through food chopper. Add juice and grated rind of 3 lemons and 1 orange and 2 pounds of granulated sugar. Cook twenty minutes, fill jelly glasses and seal.

And *Rhubarb Conserve* is such a delicious addition to a toasted muffin, and so easily made:

6 cups of rhubarb cut fine, 5 cups granulated sugar, 4 oranges, 1 cup chopped nuts. Put sugar on rhubarb and let stand over night. Cut the peel of the oranges in small pieces, cover with water and let it stand over night. In the morning, add the pulp of the oranges and cook until peel is tender, then add sugared rhubarb and cook until thick. Remove from fire, add chopped nuts and put into jelly glasses.

Of course you have a mint bed in your garden! When you expect guests in for tea, make some *Mint Jelly* to spread on thin crackers:

Soak one tablespoon of gelatine in 2 of cold water for 5 minutes. Boil $\frac{1}{2}$ cup of strong cider vinegar with $\frac{3}{4}$ cup of sugar. When boiling add $\frac{1}{4}$ cup of mint leaves cut into finest pieces. Remove from the fire, add the gelatine, mix thoroughly, turn into a small, fancy mold and chill. This is most appetizing and unusual.

For your tea-table dainties (or for some special luncheon color-scheme) do not forget that vegetables make safe and sane colorings. Beet juice makes any desired shade of red or pink, spinach or green peppers will furnish cool green coloring for cream cheese to be made into sandwiches and a little grape juice will color whipped cream or icings a delicate lavender.

AS WE look at our gardens these rapidly-flying summer days, not the least of our joy in them lies in the fact that we have learned to let them creep indoors in many delightful ways so that, in some form, they are with us all the year 'round. The Roses of summertime become the rose jars of winter, the Lavender and Rose Geranium leaves are tucked away among our finest linens; sunroom and breakfast-room will be gay with vines and window-boxes brought indoors. And prosaic but none the less satisfying, yes, and beautiful too, the store room can have rows and rows of delicious vegetables, health-giving and tempting.

Does canning, to you, mean hot kitchens and hard labor, with costly canning outfits and, all too often, jars of vegetables spoiled when opened in wintertime? Canning need mean none of these. It is not necessary to can a dozen jars at a time unless you wish. Try doing one jar at a time. And when a jar is opened and there is that condition known as "flat sour," there's a reason for this that does not reflect credit on the canner. Vegetables too old, jars not sterilized, vegetables not blanched and then not sterilized properly in the jars, any one of these may make a spoiled jar.

There are a few very simple rules that, carefully followed, will mean success every time. First as to the canning outfit. If you are going to "put up" ten or twelve jars at once, a new wash boiler makes an ideal canner. For this, cut a piece of coarse, wire screen to fit the bottom of the boiler for the jars to stand on. Jars are most frequently cracked in canning by hitting together while boiling. The coarse screen breaks up the air bubbles in the water and any breakage is improbable.

Where you are preparing only one or two jars at a time, use any utensil deep enough to permit two inches of water over the tops of the jars, plus one or two inches of air space. A deep granite kettle or a galvanized waste-food can are very satisfactory canners provided they have a close-fitting top. Cut a piece of screen to fit the bottom.

No matter what kind of a jar is used, it must be thoroughly washed and sterilized. To do this, wash, rinse and fill each jar half-full of cold water; put the top in place, held by only one clamp; then fill the canner with cold water to half the height of the jar. Boil 20 minutes (and in every canning operation where it says "boil" this means counting the time from the moment the water actually boils.) Rubbers must also be sterilized. To do this, tie together loosely with a string and drop into the boiling water for 2 or 3 minutes before taking jars out.

To prepare vegetables: the more freshly picked they are, the better; use none that are old and wilted. All vegetables must be blanched and cold-dipped before canning. This *rule is never broken if you would succeed.* Wash and clean the vegetables, scrape carrots, husk corn, peel onions, shell peas, string and cut up beans, shell limas, etc. Have a kettle of boiling water on the stove. Place a small quantity of the prepared vegetables in a square of clean, white cheese cloth, gather up the four corners, giving a slight twist so that the vegetables will not come out of the cloth, and plunge into the boiling water. Corn should be blanched 10 minutes, peas 2 minutes, all other vegetables from 3 to 5 minutes. Gather up ends of cloth, lifting vegetables out of the water, and plunge

instantly into very cold water. Let remain a few moments until cool, remove from water and place in a colander, cloth and all. They will then drain as you rapidly fill the jars. Pack the vegetables tightly in the jars, using a large spoon, and do *not* touch the vegetables with the hands. Place cap on the jar while blanching more vegetables, repeating until jar is filled. Add 1 teaspoonful of salt to each quart jar, adjust the rubber, fill jar to overflowing with boiling water and put on jar top. Use only one clamp, or if a porcelain top be used, turn it just against the rubber. Place jar at once in the canner. In filling quart jars with corn, peas, or lima beans, fill only to within 2 inches of the top as these vegetables, being starchy, will expand.

Now fill the canner with hot water until it is 2 inches over the tops of jars, put on cover of canner. All vegetables are sterilized 1½ hours, except corn which is boiled for 3 hours and tomatoes which are sterilized only 15 minutes. Then remove from canner, tighten tops, cover with towels to keep jars from drafts that might crack the jars. When cool, store at once in a cool, *dark* place.

And that's all there is to canning! It's such fun where only one or two jars are done at a time and *such* a treat when winter comes.

Canned Corn: For a quart jar, it requires about ten large ears or 12 to 14 small ones. Husk, blanch, cold dip, and then cut from the cob, scoring each row of kernels first to make the corn fine, taste better, and pack better. Remember about leaving room at top of jar for expansion and be sure to add one teaspoon of salt to each quart jar, or one-half-spoonful to each pint.

Canned Vegetable Soup: Yes, you can can your own and you will agree that you have added a genuine treat to your winter dinner table. And it's fun to see how many vegetables you can put in, and canned soups never spoil. The canning steps are just the same: sterilized jars, tops, and rubbers, vegetables blanched and cold-dipped,—but there is this difference, the vegetables are all cooked together in a large kettle before canning. Start with those requiring longest cooking. Have about a quart of boiling water in the kettle, if you are planning to make three or four jars, and then add 3 or 4 cups of sweet corn cut from the cob, then one small head of cabbage put through the food-chopper (using medium knives), then some okra cut into thin slices that make such pretty "stars" in the soup, 3 or 4 onions (put through chopper), carrots cut into dice, whole small lima beans, sweet green peppers, cut fine (about 2 of these), green and wax beans cut fine, about 3 cups of tomato pulp, peas, stalks of Swiss chard cut fine, cauliflower—in fact everything (except potatoes) that you can think of! Salt to taste and by the time the peas are added, the mixture is ready to can. It should be quite thick (there is no use in canning water). Fill jars to overflowing with the soup; after adjusting rubbers, put on tops and sterilize 1½ hours. This will have a flavor quite unlike any soup you have ever eaten and you cannot go wrong on proportions, being careful, however, not to use too much tomato pulp. If there be any vegetable you dislike, omit it and add those you like best.

Whole Tomatoes: These are delicious for salads when fresh tomatoes are in the luxury class in winter. Scald and remove skins, using tomatoes of a size not to require squeezing when placing them in the jars. The wider-mouthed jars are best for this. Put tomatoes carefully in the jars without breaking, use no water, add one teaspoonful of salt, adjust rubbers and tops and sterilize for 15 minutes. Or, if desired, the jars may be filled with boiling tomato pulp, this to be drained-off (when jar is opened) for soups.

Spinach, Swiss Chard or Other Greens: Wash thoroughly, and blanch by putting them in a steamer over boiling water for 15 minutes. Cold dip at once and proceed as for other vegetables. These are delicious.

HOW THE VANILLA ORCHID SERVES YOUR HOUSEHOLD

THE mere word "Orchid" seems synonymous with luxury and immediately conjures up pictures of grand dames and débutantes in satins and floating draperies with a corsage bouquet of lavender-pink tropical beauties as a finishing touch. Never do we think of Orchids and kitchens in the same mental breath, as it were, and yet a kitchen shelf without its bottle of vanilla would be hard to find, I fancy.

Much of this flavoring extract, particularly of the finer quality, is made from the seed-pods of the climbing Orchid, Vanilla planifolia, a native of Mexico but now widely cultivated in certain parts of the tropics, as the West Indies, Java, Bourbon, Mauritius, and other islands where the hot, damp climate suits its disposition.

The word "vanilla" is the Spanish for "little sheath" or "pod," descriptive, of course, of the pods from which the extract is drawn. These pods are picked before they are ripe and dried; the vanillin, which contains the aroma and flavor known to us as vanilla, gradually crystallizing on the outside of the cured pods.

Of all the Orchids, Vanilla planifolia is the only one to achieve economic importance, demonstrating perhaps that among plants as among people the law of compensation holds good and sometimes the least showy individuals contribute most in the way of actual service. Certainly the yellow inconspicuous flowers of the Vanilla would never draw attention while there are so many of its more impressive kin to dazzle folks' eyes and kindle the imagination with fantastic shapes and colors.

In growing the Vanilla for commercial uses, plants are propagated by cuttings anywhere from 2 to 12 feet long. These are either set in the ground, or merely tied to a tree without direct connection with the earth; in the latter case, however, they soon send out aërial roots, thus establishing the connection for themselves. In most places where Vanilla culture is practised, the flowers have to be pollinated by hand as, by some strange oversight of nature, pollinating insects are lacking. The plants begin to bear about three years after setting and continue to fruit indefinitely, and half a century later will be producing an average of about fifty pods each year.

MY ROCK GARDEN

HILDA MORRIS

GRAY rocks are kindred of the mould
That brings my seed to flower,
Companions of the bitter cold
And of the sunbright hour
Their gaunt shapes shoulder earth away
As on some distant glacial day.

And though I coax the soil to bloom,
Bordering them with grace,
Still in my garden's little room
The gray rocks keep their place,
Eternal as the hills that rise,
And motionless, and old, and wise.

I would not change them for a plot
That I could smooth and tend.
Frail climbing tendrils fear them not,
And fragile fern leaves bend
About them, listening, I know,
To wisdom learned from sun and snow.

My garden wall, while I am here,
Shall compass them about,
But they shall last for many a year
When this is put to rout.
Behind the flowers' ephemeral wings
I love these strong, enduring things!

Two Rock Gardens Near the Sea

Designed by
Beatrix Farrand

Photographs by
Herbert W. Gleason

ROCKERY LINKING DWELLING AND LAWN

So often the rock garden is relegated to some far corner where the fun of watching the daily unfolding of its many fascinating little plants cannot be enjoyed to the full as here at the doorstep of Mr. Gerrish H. Milliken's summer home at Northeast Harbor, Maine

WHERE LIGHT COLOR GLEAMS AGAINST THE DUSK OF PINES

The rockery need not be necessarily a lowly, subdued thing but, leaving man's dwelling and wandering toward the free woods, it swings up to high bloom. Mullein, Japan Iris, Pinks, Veronica, and other familiars flower in this Maine garden of Mr. Milliken (see upper view also)

A POOL BEAUTIFULLY BROIDERED ABOUT BY PLANTS

Anything more lovely and more various than this planting in Mrs. Farrand's own rock garden at Reef Point (Bar Harbor, Maine) would be difficult to imagine. The lacy flower of the Meadow-sweet and the heavy foliage of Megasea (Saxifraga ligulata) teach a lesson in the value of contrasts

WHERE ARTIFICE AND NATURE SEEM ONE

Perhaps the highest test of any art is its power to convey a convincing semblance of reality, and certainly this bit of planting is so skilfully done that it merges into the natural landscape with no sense of difference or division. In Mrs. Farrand's Bar Harbor garden (see also above)

The National Garden Association

Formed to promote the annual observance of National Garden Week

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THE National Garden Association has become a meeting place of interested garden-workers, each one bringing some worth-while tale of beautiful gardens, inspiring stories of community-beautifying, of flowers grown for the sick and helpless, of parks and play places established to bring beauty back to congested city districts. Each tells of some new way of broadcasting beauty, some unusual method by which the spirit of National Garden Week is being carried on throughout the year.

From Chicago comes word of a most unusual garden club of 3,000 members. This is the Utilities Garden Association, its members men of the various utility and public service companies of the city. An account of this, the largest Utilities Garden Club in America, was sent us by one of its founders, Mr. L. W. Nack, in a letter that we publish in full. It is worthy of serious consideration by every similar company in every large city. What this club has done in Chicago may be done elsewhere. The beauty they have brought into their city may be brought to other cities as well. Mr. Nack writes:

The Garden Club originated at the Commonwealth Edison Company in 1921. Four of us who were garden lovers believed that a garden league would be a success. We knew that a garden improves the home surroundings, keeps the family together, that gardening keeps us mentally and physically fit, and is a game or sport that all can play four seasons of the year. That spring, we held our first flower show, holding another in the fall and each succeeding year. Each year the number of exhibitors has doubled.

Pleased with our first success, we invited employees of other public utilities companies to form an association. This has created a friendly rivalry between the companies, and the members are doing all possible to grow and develop better Iris, Roses, etc. We have so many members now specializing in these various flowers that we have taken steps to affiliate with the many national flower societies.

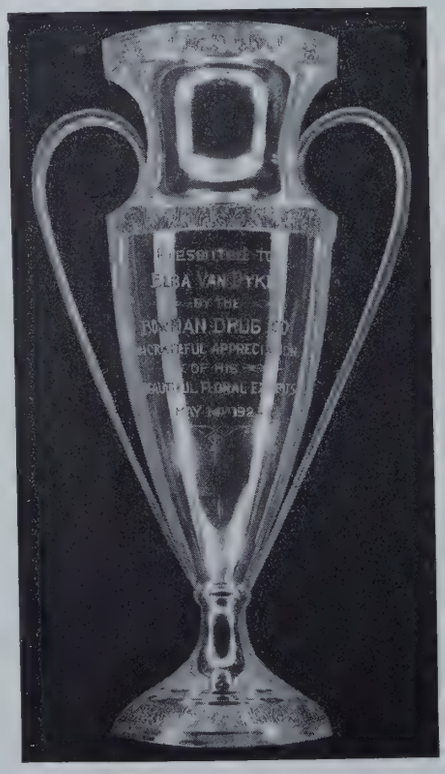
We (the Edison division) publish "The Round Table," a sixteen-page monthly bulletin containing timely garden articles. Our club library has books on gardening and all bulletins or booklets received are filed for use in the library. A special feature is our plan of collective buying. We buy only new and proved varieties of plants and have saved our members over $1700 in this way.

A record to be proud of! A definite constructive effort to make true the hope underlying National Garden Week—to "make this country a better and a more beautiful place to live in."

FROM the results of these 3,000 workers, we turn to an account of the achievement of one woman, Mrs. Willard Bayliss, Chairman of Public Welfare Department of the Minnesota Federation of Women's Clubs. "I am very glad to tell you a little about sending out flower seeds," the letter runs, "for it is something that so many women could do so easily. In our big county of over six thousand square miles, our country women are so isolated. And flowers are the best sort of panacea for loneliness. So—five years ago—I saved every seed possible from my own flowers and secured also the names of women living in our loneliest sections. Then, at Christmas time, I made up gay packages of seeds, and sent them off with directions for their planting and care, with a cheery Christmas card saying that the seeds came from my own garden. Such letters of gratitude came, that every summer since that time I have gathered more and more seeds, giving away last year over 3000 packages. Many of these women are now, in turn, saving their flower and vegetable seeds to give away."

SO RAPIDLY are the wildflowers disappearing from beside the woodland trails the country over that the story of the work being done by the Girl Scouts of Portland, Oregon, is most heartening. For, not only are they helping in their own corner, but their example is so stimulating that other groups are emulating it. This new phase of conservation has been the gathering and sale of wildflower seeds.

Last year, during the summer and fall, these Scouts on their hikes gathered seeds of more than 30 varieties of wildflowers, under the expert direction of their leaders. No rooted plants were taken, only the seeds. These were packed in small, carefully labeled envelopes, each package containing brief cultural directions and each guaranteed true to name. These were then sold and the results of this sale have been far-reaching. Not only did it bring funds to the Scout treasury, but it enabled any interested gardener to introduce these lovely wildings into his own garden. And this has been of interest not only to the people of Oregon; seeds have been bought in several other states and some even ordered from England. To any one desiring to have a wildflower corner in his garden, we would urge writing to these Girl Scouts of Portland.



SILVER CUP AWARDED FOR COUNTER BOUQUETS

Folk with all the country spread about their doorsteps can scarcely realize what a few flowers may mean to city-bound people. All praise to Mr. Van Dyke for the kindly impulse which won him a silver cup! (See text at right)

A VERY significant individual contribution comes in this word from a California garden neighbor, Mr. E. Van Dyke of Oakland, whose employers presented him with a silver cup (picture at left) as a mark of their appreciation:

"Our store is a very large one, many people come in every day, and I know some of them never see the inside of a flower garden nor have the least idea how the beautiful flowers grow, yet a vase of beautiful flowers stops them and in their own peculiar language, a soft whispering kind, I'm sure they are saying, "Take a look, it's free." I have flowers of some kind on the cases nearly every day in the year. During May when the Tulips were in flowering mood, I cut several dozen for the store, just so other people could see how nice they were.

This may be an incentive to others who have lots of flowers and who do not grow them for a commercial enterprise, to choose one of their family stores and keep on their show cases a few cut flowers as often as possible. It is not going to hurt anybody, it will do lots of good, and in the end make the world a better place to live in, and I know the storekeeper is not going to object, and ninety-nine in a hundred will help as much and as far as they can."

SHRUBS WHICH KEEP THE WINTER GARDEN GREEN

B. Y. MORRISON

Many Good Evergreens and Other Shrubs Colorful in Fruit and Stem which Defy Rigorous Days Even in Gardens of the North

WHEN the frosts of autumn have made their first havoc in the garden, removing all the tender things in a night and marking even the hardiest survivors with a touch of dissolution, evergreens appear with a new value among their deciduous kin. This was emphatically proven to me this year in a small garden in the making of which Box is used to outline all the beds. As a young garden and one that receives only a moderate amount of attention, it aims for few effects and as yet achieves them only in part, as the owner has not completed even the skeleton of his scheme. The whole of a long terrace is graded, however, and the long path with Box edges already makes a charming passage. Through the summer the half-filled borders are reinforced with annuals, chiefly maroon colored French Marigolds, Ageratum, and white Petunias, which so occupy the front of the border that the Box counts for little save to keep the lines of the beds. But after the frost, the edging stands out rich and green, full of health and fatness, while the blackened Marigolds and Ageratum are carried away and the flowerless but still green Petunias are ignominiously pulled up.

So much can be said for Box, its romantic associations, its elegance of contour and color, its fragrance and permanence! But the thing which should be stressed most is that Box is not nearly so slow in growth as it is commonly reported. Eight years ago I planted a hedge of the ordinary Box (Buxus sempervirens) and to-day it has grown to a little more than thirty inches from its original size (the four-to-six inch grade of the nursery) and, in addition, has provided cuttings for more than two thousand new plants. A rate of three inches a year is not to be compared with the rate of growth of a Privet or a Barberry, to be sure, but the cumulative effect of three inches a year is really astonishing and, like so many garden works, needs only a beginning to offer proof. Meantime the hosts of small plants that were raised from the clippings alternate years, are growing vigorously to make new hedges. If the dwarf or suffruticose form of Box edging is used, of course there will be no such growth, and eight years would probably show no more than eight inches of compact growth.

Aside from a Golden Box, which displays rather ugly yellow green stripes on new growths, only to lose them in summer, I have not grown the other forms of Box, but they are an interesting field for further exploration, from the loose growing tree Box to the slow growing myrtle-leaved Japanese form.

NEGLECTED, not because of its rate of growth but because it is less well known, is Siebold's Euonymus (Euonymus patens of the botanists). This excellent shrub appears from time to time in the catalogues, but it is not common in gardens. Unlike the stiff and erect Japanese Euonymus, it grows with tall arching branches and slender graceful twigs. The foliage is a vivid pale green on the new shoots, darkening through the summer and showing some tints of brown and purple in the late winter. In the North, the plant becomes deciduous, but here near Washington, D. C., it is practically evergreen. The flowers are abundantly produced in late August and although they cannot compete with the hardy Hydrangeas or Hibiscus flowering at that time, their pale green clusters show well against the dark foliage. They are followed by small fruits, white tinted with pink, opening to display orange seeds. The fruits on my plants are not produced with the freedom of the flowers, due possibly to the fact that the plants are growing in the shade of Oak trees. This may also account for the fact that the tallest growths have reached not more than six feet, which is less than the plant is reported to attain.

Holly can be passed by with mere mention save that, like Box, it is not as slow as one might think and should be planted freely in all its kinds but especially the American, English, and Japanese, this last (the shrubby Ilex

FIRE-THORN (Pyracantha Lalandi)

"If brilliant fruits are desired, no evergreen shrub can surpass the Fire-thorn." The orange berries of the variety Lalandi are extraordinarily decorative and it has proven perfectly hardy here in THE GARDEN MAGAZINE gardens at Garden City, N. Y.

crenata) rather than their taller species. It might be noted that the last makes an excellent background for the tender pink and white flowers of Azalea Vaseyi and for its brilliant autumn foliage.

The Great Magnolia of the South (Magnolia grandiflora) also calls for brief attention. Wherever it will survive, it should be used. It is slow to start but when once established makes more rapid progress. My own small plant, six inches high eight years ago, is now more than ten feet. There are no flowers to be sure, but there are wonderful leaves which do not curl up and shiver as do those of the Rhododendrons.

These last are fine shrubs with the finest flowers imaginable, but they are cold comfort in the winter garden and should be planted far away from the dwelling if merely for the psychological effect! Their relatives, the hardly less showy Kalmia and the less brilliant Pieris and Leucothoë, are braver in winter weather.

RETURNING to the less familiar shrubs for more southern gardens, another neglected one of large size is the evergreen Eleagnus. Eleagnus pungens or one of its varieties is the species most commonly grown. This makes huge shrubs ten feet high and as much if not more through, with long spiny shoots springing from the base clothed with oval leaves, dark green above, silvery below, more or less covered with minute rusty brown scales. The flowers are small, greenish, and fragrant but quite hidden, as they are on short stems close to the branches. The only plants I know do not mature fruit, but the botantists report them as "not showy." Various forms are described with variegated leaves, but the variegations are not constant and there usually are as many green branches as in Golden Privets.

If brilliant fruits are desired, no evergreen shrub can surpass the Fire-thorn (Pyracantha). When thoroughly established and well grown, this will send up great canes ten to twelve feet from the base, producing the following year (from the lateral branches already formed) small clusters of moderately showy hawthorn-like flowers which are succeeded by bunches of orange-scarlet berries, so numerous that often the boughs are bent to the ground. For this plant there is one caution, secure small and, if possible, pot-grown plants as the meagre root system of larger plants does not stand transplanting well. [The variety Lalandi, with orange fruits, seems to us more decorative and is reported to be more hardy. It grows well and fruits heavily in The Garden Magazine gardens at Garden City, N. Y. (see page 405), and is greatly admired every fall by visitors. We cut whole branches for indoor decoration, and it should be noted that the fruits keep better if *not* put in water!—Ed.]

There are two important evergreen members of the Privet family, Ligustrum japonicum and Ligustrum lucidum. The latter is more tender, more tree-like in growth, with larger leaves suggestive of its cousin, the Lilac, but both can be kept as shrubs; and it is easy to believe that a fine ten-foot hedge of the Japanese Privet would be an inspiring sight. Both produce, rather sparingly here, clusters of bluish black berries. [L. lucidum lives in our evergreen garden, well sheltered, but is cut back by the cold each winter.—Ed.]

Contrasting strongly with these in effect, the large holly-like leaves of the Japanese Mahonia (Berberis japonica) make a striking feature in the garden border. Its foliage, together with the winter clusters of flower buds that open fragrant bells the first mild days in February, give sufficient interest to insure it a place in any mixed border.

More recent of introduction and so less well known, is Sargent's Barberry, an elegant shrub of compact habit forming rounded bushes not unlike young Box. The plants known to me are about four feet high and give the appearance of making somewhat more growth; the leaves, about two inches long, are rich shining green, sometimes turning red in the autumn on the weaker twigs and on the oldest leaves which are about to fall. This is especially noticeable in dry seasons. The berries are dark blue and not very showy, following on inconspicuous bloom. The plant is armed with abundant and vicious spines which should give it first value where a low protective hedge is wanted.

WHERE AUCUBA JAPONICA FEELS AT HOME

A good evergreen for the more southern gardens bearing (on the pistillate plants) fine scarlet berries about the size of a large acorn and making an effective porch screen at this South Carolina home at Magnolia on the Ashley

ALSO of recent introduction are two evergreen Honeysuckles, Lonicera nitida and L. pileata. The latter I have not grown but have seen plants which, though small, showed a most attractive growth, rather stiff and erect as compared to the loose and arching shoots of Lonicera nitida. This last has not reached any great size here, due possibly to its somewhat shaded situation, but has made charming small bushes up to two feet, with curving stems so thickly set with slender branches and tiny shining leaves that Ferns are called to mind.

Two evergreen shrubs often mentioned in English papers conclude the list: they are the Aucuba and the Cherry Laurel. The latter is the less successful here but its form known as schipkanensis is entirely hardy and in sunny places makes small bushes with fine foliage somewhat the shape and size of Rhododendron leaves but carried differently on the plant. The Aucubas are entirely hardy but often their broad soft leaves are totally destroyed in a cold snap. This is disastrous for that sesaon, of course, but the plant quickly restores itself after a severe pruning so that no trace of the injury shows. The plants are dioecious and the pistillate plants bear fine scarlet berries about the size of a large acorn, but in Washington, D. C., these rarely color before frost destroys them. [A single plant of Aucuba japonica has been under our observation for several years on the North Shore of Long Island, well sheltered and quite near the water edge of Huntington Bay. It was not even cut back for many years, but went off two seasons ago.—Ed.]

There are certain advantages in using broad-leaved evergreens rather than conifers in a shrubbery, chief of which is the fact that the diversity of leaf sizes and shapes provides a variety

AN INTERESTING DIVERSITY OF LEAF AND COLOR

Azalea, Andromeda, Rhododendron, Leucothoë, and Box in a massed planting whose cool greens are refreshing in summer and carry in winter a heartening note of life

that is preferable to the sponge-like texture that appears in so many plantings of the more shrubby conifers. They do not have the variety of leaf color to be found in the conifers and for this reason should be planted carefully with admixtures of deciduous materials or conifers. Berried plants like the inevitable and indispensable Japanese Barberry, Cotoneaster horizontalis, Cotoneaster Simonsi and possibly others; green and red-twigged shrubs; the semi-evergreen Japanese Azaleas, especially the familiar Hinodegiri and the less well-known Yayegiri, which should not be near neighbors, however, as the brilliant cerise and flaming light scarlet do not keep happy company; all these and others provide the necessary foil to the green of the evergreen, which, paradox that it may appear, can at times become too green even for the most summer-loving gardener.

OUR BEST BLUE FLOWER

JOHN L. REA

Larkspur in Superlative Strains from Seed and Cuttings—Blight-resistant Plants Through Hybridizing

THE Larkspur (Delphinium), our best blue flower, bar none, needs no herald to trumpet its virtues. These are known. What is needed, as I see it, is more drastic and discriminating measures in its treatment. We want better Delphiniums, longer flower spikes, lovelier color combinations, and perhaps larger individual flowers. "How are we to have them?" Well, the first thing is to throw away the poor ones. One must be utterly heartless in the matter. I have myself become so ruthless that I can with perfect composure root out a plant even in full bloom and consign it to the rubbish heap. In the second place we probably must have Delphinium exhibitions along the lines of other special shows.

"Yes," someone says, "but that means named varieties and divisions, and everybody says seedlings are so much healthier." There's the first bugaboo to be laid. I have grown thousands of seedlings and hundreds of divisions and I defy any one to tell the difference in their second year and later behavior in my garden and numerous borders. Given equal chances there is no difference. Seedlings are easier to produce, and you will notice that it is the people who have plants to sell who are loudest in their praise. Oh, the skuldugeries of the seedsmen and nurserymen!

The trouble is that Larkspur seed rarely comes true and, although you may sow seed saved from the very best specimens, the vast majority of the seedlings will turn out to have very ordinary characteristics. I once had my fifteen by seventy-five foot Delphinium testing patch filled with a thousand or more strong seedlings grown from a particularly fine imported strain. When they were in full bloom I began selecting plants with which to make replacements in my garden. And there was no trouble in picking out the dozen or fifteen best things in the lot.

There was the nearest to a real pink, for instance, in which the inner pink petals quite overlaid the outer row of blue ones and gave a decidely pink cast to the whole spike. There was the

largest flowered one, too, a good two inches across, and this without any special treatment nor for that matter quite the cultivation it had deserved. There was the darkest Delphinium I had ever seen, in which the inner petals were an intense purple and the outer row a blue, almost indigo in tone. In all my subsequent seed sowing I have never since obtained exactly this pink nor the dark colored variety.

Seedlings grown from the seed of the dark one have sometimes produced pale blues. I have obtained two quite as dark as the parent but with noticeable differences. In the more striking of the two the petals were arranged much the same but all alike in color, purple edged with blue. It is a fascinating experiment, and at present about the only way of obtaining a really distinctive and satisfactory collection of Delphiniums. Grow a thousand or fifteen hundred seedlings from four or five of the best seed strains obtainable and select the best twenty for planting in your garden.

Increase your stock as needed from divisions or cuttings and from further seed sowing, using seed of the best of these individuals in the hope of further improvement.

IT IS surprising how easily cuttings will root at times. The best are probably made from fresh shoots. I take usually those appearing after the first blooming period. In a friend's garden last summer I was surprised to see that a number of old stalks that had been cut away after blooming and used as temporary markers for some early August planted bulbs had by late September formed good root systems. Usually one puts cuttings in sand under glass and in a shady place. Divisions may be made in spring or fall.

Several serious hybridizers are at work with Delphiniums. It is to be hoped that the results of their efforts will soon become available in the shape of named varieties of proven merit. A few named sorts are already obtainable, but in general the only way to procure satisfactory stock is to proceed somewhat as outlined above.

Another result which every Larkspur lover hopes to see the hybridizer accomplish is the development of a blight resisting strain. The fact that some individuals seem less susceptible than others gives ground for such a hope.

I HAVE been asked to say something definite concerning "blacks" prevention. I am afraid there is nothing very definite to be said at present. If there were any absolutely sure preventive known, we should have heard of it. I have tried various recipes with about the same results. Some seasons the blight leaves my plants almost entirely alone and again a small percentage will be attacked. Very bad cases are consigned to the brush fire. Bordeaux mixture is perhaps the fungicide most easily obtainable, as all drug stores carry it. The ammoniacal copper carbonate preparation accomplishes as much and with less discoloration of the foliage and does not clog up the sprayer. The much advertised "dusts" I have not tried. In localities where the blight is very troublesome I would suggest using one of these for spraying the foliage and the mixture of air slaked lime and tobacco water, to which sulphur is sometimes added, about the roots of the plant. The formula for this and the ammoniacal copper carbonate solution are given at the end of this article.

[Has lime any direct influence on "blacks"? Several readers have reported good results from using lime-sulphur; and the best Larkspurs we recall having ever seen grew in a limestone region.—ED.]

FLOWER-SPIKES OF LARKSPUR OVER 2 FT. LONG

Though Mr. Rea's garden at Plattsburg, (N. Y.) is fairly far north (in fact only some thirty or so miles from the Canadian border) where the winters are apt to be both long and severe, his success with Delphiniums is quite extraordinary, again proving the old adage that "where there's a will, there's a way"

MOST of us make the mistake of allowing too many stalks to develop on each plant. Four or five is, I suppose, about the right number. If one is particularly interested in size of bloom and great length of spike for exhibition purposes, one stalk to a plant and extra fertilization and cultivation is far more likely to produce the desired result. That is, I believe, the secret of the wonderful thirty-six inch stalks of the prize-winning exhibit of the Chelsea, England, Show of last summer.

A number of people will wish to ask where seed are best obtained. To such I would suggest first the best strain of your favorite seedsman and then some of the highly praised strains of one or two of the American Delphinium specialists. Also send to foreign specialists, if you like, for their first quality seeds. This done you may rest assured you have the very best start possible. That was exactly my own procedure, and my Delphiniums are a proof of the efficacy of the method. But remember that Larkspur seed more than a year old is practically worthless. So order early and sow without delay.

Ammoniacal Copper Carbonate: Copper carbonate, 1 ounce; ammonia, enough to dissolve the copper. Use 26° ammonia [a little less than a pound will suffice] and dilute with 7 to 8 volumes of water. Then gradually add the necessary amount to the copper carbonate until all is dissolved. It is best treated in large bottles, and in them it will keep indefinitely. Dilute with 9 or 10 gallons of water. For the same purposes as bordeaux mixture.

Lime–Tobacco Mixture: Use five pounds of air slaked lime. Mix to a white wash with boiling water. Boil two pounds of refuse tobacco in one gallon of water for one half hour. Strain and add liquid to whitewash. Add enough water to make five gallons. To use, apply one cupful of mixture to root of plant every ten days for three applications.

[Two or three handfuls of sulphur is sometimes added to the above.]

THE TEMPLE OF ANGKOR WAT

A general view of the moat, entrance, and grounds of a marvellous old temple on the Malay Peninsula built about 1100 A.D. and said to be one of the most profusely decorated in the world. When discovered by Europeans in the 19th Century it was somewhat dilapidated and overgrown by the jungle though still used by Buddhist priests for worship

THE LOST GARDENS OF CAMBODIA

H. H. MANCHESTER

Author of "A Pictorial History of the Garden," an interesting series on the early horticulture of Egypt, Greece, Assyria, etc, recently published in THE GARDEN MAGAZINE

A Romance of Fact More Fascinating than any Flight of Fancy—Rediscovering Old Gardens of the Malay Peninsula where Orchids and Oleanders, Pomegranates, Peaches, and Figs Grew Seven Centuries Ago

IT WAS not until the 19th Century that Europeans discovered in Cambodia, in the Malay Peninsula, the immense ruins of Angkor Thom and Angkor Wat, said to be the most profusely decorated palaces and temples in the world. In Angkor Thom, the city, the buildings are mostly in ruins, but still convey a conception of the palaces and grounds. Angkor Wat, the temple, while dilapidated and overgrown with the jungle, is still a wonderful structure in which Buddhist priests worship, and the plan of its luxurious gardens may still be discerned.

These discoveries revealed a hitherto unknown and highly developed people amidst the jungle of the past, and since then archaeologists have been attempting to discover something about them. Though there are hundreds of inscriptions among the ruins, few of them are as yet deciphered, and most of the data concerning the mysterious land come from Chinese sources.

There is a legend that about 400 A. D. a prince of India, who had rebelled against his father, was defeated and exiled with all his forces. They are said to have made their way to Cambodia where they established themselves, the name of the country being taken from Kambu, which was that of the founder. It rose to power through the next two centuries, but in A. D. 616 began to pay tribute to China. At that time the chief city had about twenty thousand buildings, and a temple on a mountain near by was guarded by five thousand men.

Angkor Thom was built as a capital about 900 A. D., and the temple of Angkor Wat about two centuries later. At that time the monarchs were under the influence of the Brahman Divakara, though the Buddhists were also strongly represented, and later added many features to the city and temple.

THE RUINED PALACE OF THE KINGS AT ANGKOR THOM

Angkor Thom, the capital of Cambodia (Malay Peninsula), dates back to about 900 A.D. and "the wealth of the city is evinced by the fact that many of the statues were covered with gold and the tower of the palace where the king passed the night was also covered with gold"

IN 1295 the Chinaman Chow-Ta-Kouan visited Cambodia, perhaps coming with the very expedition in which was Marco Polo on his way back to Italy. He wrote an account of Cambodia which gives us the best idea of the palaces and grounds there just before the era of its decline.

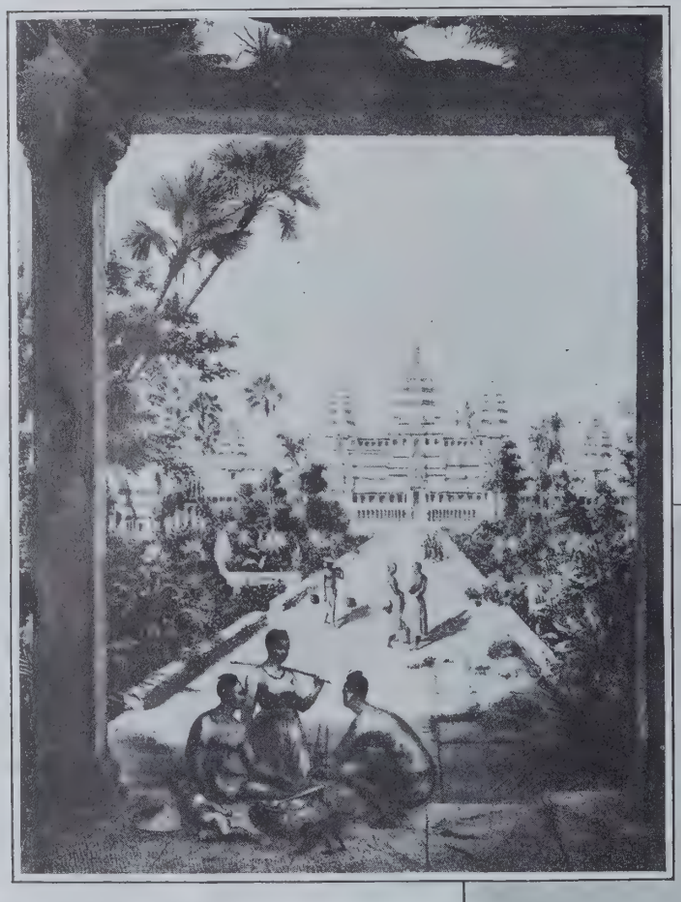
The general plan of Angkor Thom is described by him as follows: "The capital

city is about two leagues around; it has five gates, each double, the one looking east having two openings, the rest only one. Outside the gates is a wide moat, and beyond the moat causeways with great bridges. On each side of the bridge are fifty-four statues of stone representing the gods. . . . The piles of the bridges are all of stone, and the arches in the form of a serpent having nine heads. The fifty-four statues together carry a mighty serpent as if for the defence of the passage."

The wealth of the city is evinced by the fact that many of the statues were covered with gold, as well as the bridge itself and figures of lions at the right and left of it. Within the city, and to the north of the bridge of gold, was the palace of the king. The tower of the palace where the king passed the night was also

THE BAYON AT ANGKOR THOM

An amazing palace in the capital city of Cambodia said to have fifty-three elaborate towers each decorated with four heads of Buddha and many representations of the sacred serpent



TEMPLE GARDENS OF EIGHT HUNDRED YEARS AGO

Banyans, Bananas, Cocoanut and Areca Palms, Teak, Pomegranate, Fig, Almond and many other trees "odoriferous and beautiful, as well as an infinite number of flowers" flourished in these ancient gardens of the Malay Peninsula

ONE OF THE MANY TOWERS OF ANGKOR WAT

"The pointed arches which rise one above the other to the pinnacle of the tower consist chiefly of the many-headed serpent, a prominent feature in the architectural decorations of an almost unknown and highly developed people amidst the jungle of the past"

covered with gold, as was likewise a tower to the south of the palace and near the bridge. Near the gate was an enclosed garden half a league in circumference, details concerning which we will take up later.

The temple of Angkor Wat was about a mile from the city. It was surrounded by a moat thirty rods wide, which was crossed by a great stone causeway leading to a massive tower in the wall. This opened into an enclosure about half by three-quarters of a mile in size. From the tower the stone boulevard, at each side of which were gardens of flowers and bushes, led to the Wat or temple. This was built of gray sand-stone of three terraces rising one above another, the tower mounting to a height of more than two hundred feet. At that time there were three principal religions in the city, the Buddhist, Tao-sse, and Passe.

The walls, corridors, and halls of the city and temples were crowded with miles of reliefs portraying gods, mythology, battle scenes, kings and queens, as well as interesting bits from everyday life. Thousands of heads of Buddha, and numberless sacred Nagas or many-headed serpents, crowded the corners and cornices, and overawed the beholders.

AN INTERESTING account of the peculiarities of agriculture and gardening there at the end of the 13th Cen-

tury is also given by Chow Ta-Kouan: "From May to October it rains every day. After the summer solstice the fall of rain is so great that the waters rise seventy or eighty feet and cover the tops of big trees, while all the dwellers at the sides of the rivers retire to the mountains. Then from November to April the rain ceases entirely, the rivers permitting the passage of only small barks, and the deepest waters measuring not more than three to five feet. Thereupon the inhabitants return to the work in the field.

The crops are ripened during the period of inundation, and the ground over which it extends is what they cultivate, and where they sow the seeds. In this they make use of no implements. . . . The Cambodians have one cereal which grows on low lands without sowing; though the water reaches ten feet in depth, this rises day by day along with it. They use no method of fertilizing their grain or herbs."

This extraordinary rise and fall of the waters affected the lake and the lowlands extending some twelve miles toward the temple, but this and the city were themselves above the flood and on somewhat sandy soil.

Chow Ta-Kouan even tells us something of the flowers, trees, and vegetables which were cultivated in the garden. He wrote: "There are many species of trees that are odoriferous and beautiful, as well as an infinite number of flowers which grow in the water." Among these was the Water-lily which bloomed in the first month. This was both white and deep red, and no doubt grew around the edges of the moat, and in the shallow ponds which were at the foot of the terrace at each side of the causeway. There was also the sacred Lotus which sprang up in abundance in almost every muddy shallow. Its rose-pink blossoms were held in great esteem as it was a much revered emblem of Buddhism. As such it frequently appears in the bas-reliefs and other ornaments of the palace and temple. As mentioned by Chow Ta-Kouan, the root and seeds of the Lily and Lotus were used for food. Another plant which spread everywhere over the ponds was the Water-hyacinth, but this was little considered, and was at times more troublesome than beautiful.

Perhaps the most noticeable of the trees that grew on the lowlands was the Mangrove, which in the wet season was in such deep water that it was cut down for fire-wood and carried away in boats. Around the temple and city were Cocoanut and Arica Palms, Banyans, Bananas, and the Yam, all intertwined with masses of liana vines. There, too, were the Teak, the wood of which was used in carvings, the Flamboyant Tree whose naked trunk gleamed white from a distance. In the gardens, according to our Chinese authority, flourished Pomegranates, the Peach, Indian Fig, and Orange, while the Almond was in favor for shade as well as for its nuts.

Among the vegetables of the kitchen garden, he says, were Onions, Mustard, Water-melons, Cucumbers, and Pumpkins.

The flowers cultivated in the gardens seem to have included the Champec, notable for its sweet-scented flowers, the Hibiscus, and the Olea fragrans, much used for making garlands and for scenting drinking water and tea. There were also Oleanders, the sacred Convolvulus, which furnished a running motif for art, and the Moonflower, which opened at night. Orchids sprang in glorious profusion from the limbs of the trees, while the Grenadilla climbed in great masses up the trunks.

ORCHIDS OF THE MALAY PENINSULA

"Orchids sprang in glorious profusion from the limbs of the trees" in the gardens of Cambodia nearly eight centuries ago "while the Grenadilla climbed in great masses up the trunks"

NOT long after the account by the Chinaman, Chow Ta-Kouan, the original inhabitants of Siam began to throw off the over-lordship of the Khmers, who were the builders of the city and temples. In the 14th Century the Thais or Siamese were victors in a series of wars, and more than once captured and pillaged Angkor Thom. Inability to defend the city in the 15th Century led the Khmer kings to abandon it for a new capital at Lovek. In the 16th Century, however, Lovek itself was overthrown by the Siamese, and the Khmers practically passed out of existence. During that century the Portuguese for a time had trading posts in Cambodia, as did the Dutch in the century following. But for the next hundred years Europeans were pretty well out of touch with the country, and the amazing ruins were well nigh forgotten.

In the last few years, however, the French, who have a protectorate over the district, have begun to clear away the extraneous growths of vegetation in an attempt to reconstruct the temple, and even the city, as they were in the days of their glory. One factor which makes this easier, is that the Cambodians used no mortar, but fitted the stones so closely together that even to-day it is not difficult to locate their former position.

LETTUCE AND TOMATOES FOR WINTER

Lettuce: Plant seed August 20th in the open.
Transplant month later to greenhouse—space about 6½ inches apart.
Crop ready in five weeks, or 70 days from seed to table.
Tomatoes: Plant seed August 5th.
Transplant to 3-inch pots in 3 to 4 weeks.
Transplant to greenhouse soil 3 weeks later.
Ready for table about October 25th—plants continue to bear well into January.

THE ANNUNCIATION LILY

Three Hundred Lilies Dating Three Quarters of a Century Back Disproving the Popular Belief That This Flower of Ancient Lineage Does Not Endure—Summer Planting and a Little Winter Care Are All That It Asks Even in the Colder Regions

I. WHAT CAME OF A BOY'S LOVE FOR HIS MOTHER

LOUISA L. SMITH

IN THE year 1848 a small boy was sent on business from Constantia, N. Y., on Oneida Lake, to Oswego; and there he saw his first Madonna Lily. He was so anxious to carry home to his mother one of the plants that the lady who had the Lilies gave him a bulb in bloom, sure though she was that it would not live. The boy trudged home behind the team of oxen carefully carrying the Lily which was planted out and grew and multiplied. When the family moved to Kinderhook and later to Whitesboro (in the same state), the Lilies went, too, and grew better each year. The blossoms were sent to the sick and afflicted.

The boy grew to manhood and went to Illinois to make a new home, taking some Lily bulbs (for his one had now multiplied into many) to beautify his new garden. Thus the Lilies became a family tradition. As the years went on a daughter from this home married and removed to Dixon, Illinois, where a new Lily bed was started with a few bulbs from home. This particular bed (shown in the accompanying photograph) now has more than three hundred bulbs and last year (1923) there were more than three hundred blossoming stalks with from five to fourteen flowers on each stalk—some stalks being more than four feet tall. As this is written, the Lilies for 1924 are in flourishing condition despite the cold, late spring.

If starting a new bed of Madonna Lilies in late August or early September, make the soil fine but not rich, and place the bulbs six inches deep and six inches apart. The early fall rains will coax growth, and the crown of green leaves will be well started before frost. In this climate (northern Illinois) it is necessary to cover with leaves, and in the latter part of November boards are placed (not too close together) to prevent leaves from being blown away. In April take off the boards, and loosen the leaves lightly, but leave on the greater part for mulching. Occasionally stir the soil with a trowel, but do not over-cultivate.

The time of flowering varies from June twentieth to the first week in July. Every four or five years the bulbs should be reset in new ground. It is my opinion that the flowers should be cut and not allowed to wither. I have never lost a bulb from dry rot or any other disease.

THREE HUNDRED MADONNA LILIES IN AN ILLINOIS GARDEN

Quite evidently the Madonna or Annunciation Lily is both prolific and long-lived, for the ancestors of this flourishing group date back to 1848 (see text above) and survived some seven hundred miles of travel before being permanently established in Mrs. W. H. Smith's garden at Dixon, Ill. Photographed on June 23, 1923, as they bloomed against a background of shrubbery and small Walnut trees

AS THE TENT LILY GROWS IN PENNSYLVANIA

"I took the above photograph of Lilium candidum," writes Mr. Kains, "at State College, Pa., in 1915 or 1916. The clump was thriving alongside a lane where it had taken care of itself *literally* for years"

II. THE ANCIENT LINEAGE OF THE ASCENSION LILY

M. G. KAINS

OF ALL the hundreds of gardens I know, I presume not as many as one per cent. can boast of any Lilies, and of those that do contain Lilies of any kind probably not one in ten can show the Madonna Lily (Lilium candidum) established.

This species, believed to be the Lily of the Bible, because native to Palestine and adjacent countries, is supposedly the one from which the whole Lily family is named (*li*, meaning white). It has doubtless been longer in cultivation than any other Lily, as may be suggested by its numerous popular names; for instance, Annunciation Lily, Ascension Lily, St. Joseph's Lily, Lent Lily, Madonna Lily, and Bourbon Lily.

Having so many names suggests how readily adaptable it is to widely varying garden conditions. It is one of the ten or twelve most easily grown species and should therefore be in every garden. In any ordinary garden soil, whether in partial shade or full sun, but preferably the former, it will take care of itself and produce stems two to four feet tall, bearing in late June or July one to sometimes twenty delicately perfumed, waxy white flowers each three to four inches long and wide.

Among the varieties it has developed is one (Lilium candidum speciosum) with smaller flowers which open about two weeks later than the type; another (var. maculatum) has flowers veined and streaked on the outside with purple; in still another (var. foliis-albo) the leaves have a broad edge of yellow. The double form, in which the flowers are abortive, is not worth growing except as a monstrosity. In fact, none of the varieties is an improvement on the original form.

SOME COLORS THAT PLAY THE CHAMELEON

IN CONNECTION with indoor decorations which are intended to serve their purpose under artificial light, it is well to know and remember that certain reddish flowers with a magenta cast are difficult to harmonize because they become a brilliant red under the incandescent or similar light, the magenta disappearing almost entirely. The effect is quite startling.

Peony Felix Crousse, for example, while quite a satisfactory Peony in many situations, has considerable of this difficult magenta in its composition. If one makes the experiment of taking a flower in the daytime in the normal light (better not right in the sun, if memory serves rightly) of a room and then carries it into an artificially lighted room, convincing evidence of this fact will be afforded. One can hardly believe his eyes! The flowers of the Double Rosepink Campion (Lychnis viscaria flore-pleno) and others of a similar color, are, of course, affected in the same way. While the Carnation Gorgeous—fine in the daytime—would not ordinarily be considered as having anything of the magenta in it, becomes so much finer under artificial light as to warrant the conclusion that there must be some magenta in it after all.

At one of the exhibitions in Horticultural Hall, Boston, there was an exhibit of large plants of Azalea indica in different varieties. When first seen in the daytime the color combinations were so violet that they gave a person the "blues," but seen again at night the colors harmonized perfectly, as though some magic wand had been passed over them.

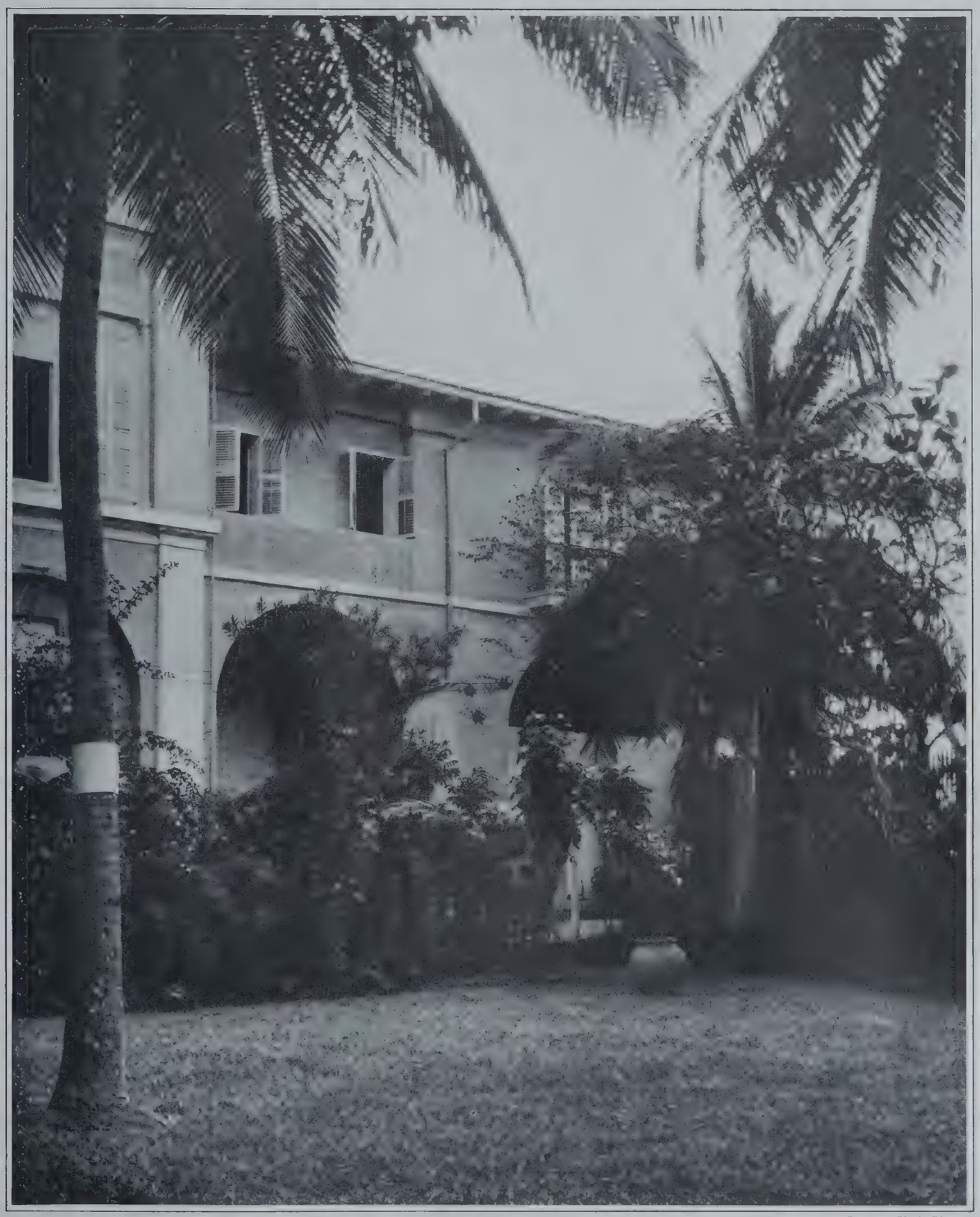
HANS J. KOEHLER

JAPANESE GARDEN AT MOANALUA NEAR HONOLULU, HAWAII

Some Gardens of "Over-Seas" America

HEDGE OF NIGHT-BLOOMING CEREUS (Selenicereus grandiflorus) IN A HONOLULU GARDEN

MAIN ENTRANCE TO PLAZA ZAMBOANGA AT ZAMBOANGA ON MINDANAO, THE SOUTHERN MOST LARGE ISLAND OF THE PHILIPPINE GROUP
(Courtesy of The Bureau of Agriculture)



Cameron Clark, Photo.

IN THE GARDEN OF THE GOVERNOR AT SAN JUAN, PORTO RICO

Cocoanut and Banana Palms, Mahogany trees, masses of lavender-blue Plumbago and pink Begonia, Amaryllis, Roses and Lilies in pots, Bougainvillea and Jasmine make this distant garden strongly reminiscent of nearer homes in Florida and southern California where the Spanish manner in architecture also prevails

RANKING THE IRIS LEADERS OF 1924

R. S. STURTEVANT
Secretary of the American Iris Society

A Retrospect and Critique of the Recent Annual Meeting of the American Iris Society at Washington, D. C.

THIS season I have been most fortunate in seeing Irises in many gardens, and in the maze of novelties introtroduced, and to be introduced, there are still to be found varieties as fine and as clearly outstanding as Lent A. Williamson, Mme. Gaudichau, Queen Caterina, Ambassadeur, and Shekinah. Slowly from the haze of five weeks' observation of new Irises by the dozen, certain landmarks have appeared. It is hardly fair to whet your curiosity, but in the gardens of American breeders I found seedlings yet unnamed far more outstanding than 90% of the much heralded foreign introductions of even as recent a date as 1923. The pendulum is swinging away from mere size and height, and garden effect is becoming more valued. One wearies of Prospero or Lent A. Williamson when they are planted in quantity, and turns gratefully to Bluet or Silver Mist, to pick examples from the other extreme.

Old and New Beauties and Some Striking Whites

THE range of color is being extended and there is sharper competition even among the once rare pink, red, clear yellow, and white varieties, while other classes have increased many fold. For many years Montezuma (Farr) stood alone, a rich yellow with the markings of a plicata, a surprisingly attractive thing when well-grown; but now comes Jean Chevreau (Cayeux) with light yellow standards and creamy falls; and Loudon (Fendall) an even lovelier variety which won an Honorable Mention at the Washington Show of the American Iris Society, May 27th and 28th.

Mercedes (Verdier) and Mary Garden (Farr) were pinnacled for many years, then dethroned by such competitors as Mme. Chobaut, Mme. Louesse, and Mme. Denis (all Denis seedlings); and now Zouave (Vilmorin), Lona (Sass), and Jubilee (Sass) lift their heads on high. Here there is not so great a change in color, as in size and perfection of form. As to the other plicatas it is probably largely accident that Damozel (Morrison), Truth (Sturtevant), Dimity (Bliss), and Pocahontas (Farr) seem particularly worth growing.

White Knight and the often miffy Kashmir White I happened upon in widely separated gardens in wonderful form. Though my acquaintance with them is of long standing, I had never imagined them in such ample robes. Argentina and Edith Cavell seem to have much in common, neither at their best as I saw them, and I fear they may prove unreliable. Taj Mahal was also not up to the mark apparently, but Milky Way and White Queen were splendid, the first almost a plicata with its big blooms faintly reticulated at the haft and the second small, but I judge more valuable for everybody's garden than La Neige. I was sorry to miss Theseus and Bolingbroke, but I am satisfied for the nonce.

Anent Pinks and Reds

SO-CALLED pink Iris are becoming numerous, and I have seen the entrants, but will leave Wild Rose, Georgia, and Pandora still running. The field is open in this class. Is it because we each have a special mental impression of what a pink Iris should be that brings so many disappointments? I am satisfied with my lilac, my mauve, and even my rose Irises; my pink beauty is still visionary.

Among the reds also much remains to be done. Pioneer looks promising and I was most taken with Blank (unfortunately Mr. Dykes has used a name already doubly current in our catalogs). In the deeper tones I vibrate between Opera, Seminole, and Karen, all are best and far more brilliant than Ambigu and Grevin. Dianto and Imperator verge onto the magenta of Dorman and Edouard Michel, the old and rather untamed beauty. Morning Splendor, which was shown in color on the cover of the June GARDEN MAGAZINE (although any reproduction fails to get its lustre), is hardly to be surpassed, a well-borne monstrous flower of exceedingly deep red-purple. Garnet and Acherson are the color of Archeveque, but tall and Robert Wallace is at least worth trying; while things like Elberon, Rugajo, Caporal, and Ruby Queen I should like to compare as mass plantings before I bought them.

The Gold Group

IN YELLOW, Gold Imperial is as fine as when it received an award last year at New York. Chalice fills a very similar place as a deep yellow in the garden; Primrose and Flutterby give a rather bicolor effect with their lighter falls; and Autumn Glow and Yellow Moon are of the lightest tones but true selfs. "Though I say it as shouldn't," there seem to be no named varieties at all comparable. I was not fortunate enough to see Chasseur, the French yellow; but from description it is not a clear color; and the much lauded Citronella is heavily washed with chestnut on the falls. It will, I expect, be many years before we evolve a real competitor for Citronella, but I should hesitate to recommend it to one of those unobservant gardeners who self-complacently goes through my collection of hand-picked novelties saying "I have all these. Can't you show me something different?" What can one do when such discourtesy is shown to Halo, and Mlle. Schwartz, Mother of Pearl, and Ballerine?

Fledglings and Old Timers in Lavender and Rich Dark Tones

AMONG the rich dark tones and in the pale lavenders I am quite at sea. The Dominion race is decidedly out-standing and Mr. Wareham is but one of the American breeders with seedlings of a similar origin. Cardinal, Moa, Duke of Bedford, Canopus, and of course Dominion, I have seen as well established plants; Glamour, Bruno, Yeoman, Tenebrae and many others merely as fledglings. Pachyderm, New World, Rosy Youth, and Mabel Taft are at least equally fine. And there you are! Shut your eyes and take your choice. Twelve or fifteen of them, I think, I can recognize even at this short acquaintance and if they were not so costly I should say get every one. With L'Aiglon (Shull, H. M. 1924), No. 145 (Williamson), and Valkyrie we have equal depth of rich color, but distinctive form and carriage, and another year or so will see other additions as fine.

In the lavender selfs and bicolors, matters are unbearably confused. I did my best to register the differences between Regan, Antonio, and Angelo for one group; between Halo, Neptune, and Lord of June, for another; between Hermione, and Ann Page; Lionyza and Caterina; Leonato and Souvenir de Letitia Michaud, and many more. All are big and up-standing, the last two of almost staggering size; and, when we consider pallida and cengialti hybrids (in not very different coloring) confusion is worse confounded. San Gabriel and Balboa possess some distinction of color, Horizon also is unusually self-toned, and some will find Furstin Longay attractive.

A Blue Bouquet and Some Odd Effects

IT HAS become impossible to review new introductions in a mere article, but I want to mention a list of rather blue-in-effect varieties and some odd colored ones which you may, or may not, like but will certainly find distinct. For blues I start off with Chester Hunt as perhaps the oldest, and add Bluet, Blue Bird, E. H. Jenkins, Corrida, Baronet, Blue Lagoon, and Du Guesclin. Few of them have perfection in detail and all are very different one from another. As to odd colors try Sarabande and Fedora; Afterglow, Rachel Fox, and Ochracea; May Morn, Cameo, Quaker Lady, and Steepway. New colors are to the fore and Miss Sturtevant at least plans to list some cream buffs and golden browns this coming year.

With the American Iris Society to centralize the interest, it becomes each year more possible for the gardener to get advice. There are now many collections in different parts of the country where novelties may be seen. Never has the gardener been offered such an opportunity for varied color combinations, but also never have there been quite so many pits for the unwary.

UNITING GARAGE AND GREENHOUSE FOR ECONOMY AND BEST EFFECT

The day of isolated buildings is rapidly going by and this linking of gardening and household interests has its obvious advantages, saving a duplication of heating systems (thus minimizing both initial cost and subsequent expense of maintenance) and making more attractive gardens possible, particularly on the smaller places. The combination greenhouse and garage shown above is at Elkins Park, Pa.; C. E. Schermerhorn, Architect

LET'S BUILD A GREENHOUSE FOR WINTER WILL COME

FRANCES MARKHAM

A 9 x 12 ft. Winter Playhouse Where "Light Garden-keeping" Gives All-season Enjoyment

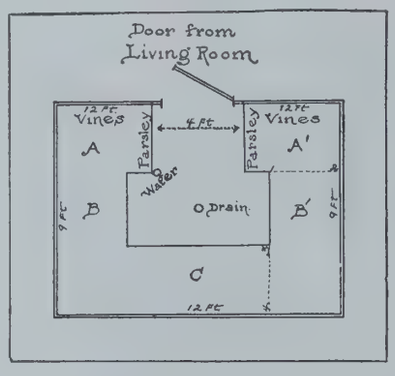
DO YOU spend happy hours digging in Mother Earth in the summer? Do the months seem long before you when the frost cuts down all your treasures? Or are your nerves out of tune? Are friends suggesting a sanatarium? If you answer "yes" to any of these questions, there is a solution for your troubles—a small greenhouse.

For many years I have kept a small greenhouse in connection with a commercial range of greenhouses. The small one was the "playhouse" and is concentrated pleasure and recreation. Do not be frightened by the word "greenhouse" and think it is something elaborate or difficult. It depends upon yourself to make it what you want it to be, a burden or a pleasure. Connect it with your dwelling so you can step in and take a final peep at bedtime without being obliged to dress for the north pole and struggle through snowdrifts.

Go outdoors now, walk around the house in which you live and consider it from the outside. If on the south side you can find a window on the first floor with a space of blank wall adjoining, it can be cut down into a door leading to sweetness and joy. Consult any of the greenhouse builders and find out how much it would cost to erect a lean-to conservatory in that place. Better still, if you yourself enjoy building, buy the unit sections that are now on the market or even buy the sashbars, water table, glass, ventilators, etc. and put up the structure yourself with the help of a local carpenter, and just add another section to your house-heat boiler for your flowers. If not, any of the heaters advertised for small garages would be satisfactory. Take your time this summer in putting up your playhouse; but do not delay about its inhabitants! Just as in order to have a good garden in summertime, you must plan in January, so also must you plan for your winter garden ahead of time and not forget it during the summer.

Which Flowers to Choose and How to Get Good Soil

DO NOT be tempted to try Roses or Carnations, but leave these and all other so-called "florist's flowers" to the expert who gives his whole time to their culture and who lies awake when the blizzards howl. There are several flowers which will grow simply and easily in a playhouse and give you blossoms from frost until your summer garden blooms. If you want the same pleasure in your winter garden that you have in your summer garden treat it in the same way only more intensively. Plant Pompom Chrysanthemums, Calendulas, dwarf Snapdragons, Wallflowers, dainty Baby Primroses, Pansies, Mignonette, Daffodils, Tulips; also, Lettuce and Parsley. None of these are difficult to grow. Sow your seeds in time, and then grow on the young plants in pots so they will be good, well-established plants when your playhouse bench is ready.



PRACTICAL PLAN OF A 9 x 12 FT. GREENHOUSE

This little lean-to conservatory may be attached by a French window or door to your living-room. A indicates space for Chrysanthemums followed by Calendulas; A^1 Chrysanthemums followed by Snapdragons; B^1, potted plants and bulb flats; B and C, Mignonettes, Pansies, Primroses, Wallflowers, Lettuce

In potting up plants to be transferred later to the benches, be sure and use shallow pots giving the roots sidewise space instead of depth; or your bench will be too shallow to hold them, and the plants will be obliged to start the winter with their roots on the boards instead of on a soft cushion of soil. The simplest and best way to keep these potted plants in good condition is to fill a shallow frame with anthracite coal ashes, and sink the pots to their rims in the ashes. This will prevent them from upsetting and keep them from drying out. Have at least 3 inches of ashes under the pots to keep out angle worms. Build this frame near the hydrant or pump so you can water the plants easily when necessary.

Soil for the greenhouse is best prepared in April or May; a layer of soil—with good sod turned upside down, if possible—a layer of cow manure, a layer of soil, and again for the top a layer of cow manure, is the ideal. It is not necessary to cut and mix it until the time comes to take it into the playhouse, only do not let the weeds steal away its strength. Be sure to keep one or two barrels of earth in the cellar or garage where it will not freeze so it will be ready for use for early garden seeds and plants long before it thaws out-of-doors.

Flats for Bulbs and Early Seeds

MAKE the flats to be used out-of-doors of such a size that they will fit into the bench two or three side by side or across and be careful not to make them too large. Soil is heavy and a flat of bulbs must be lifted and carried about more than you realize until you have done it yourself. Much pleasure will be lost if the weight is a tax upon your strength. The large Daffodils require deeper flats than the Roman Hyacinths and Tulips, so make some $4\frac{1}{2}$ inches for Emperor and Golden Spur Daffodils. If you prefer, plant your bulbs in bulb pans which are simply shallow flower-pots. Whether you use flats or earthenware pans, the bulb containers will be used later for your early seedlings for the garden: Tomatoes, Peppers, Egg-plants, Parsley, etc.

The outside of the benches will be painted dark green or any other color you prefer, but *do not paint the inside.* Leave that alone or, better still, give it a coat of whitewash with a little sulphur. Add the sulphur (flowers of sulphur) to the hot lime as you slake it, so it will be a part of the whitewash.

Order your bulbs at once and ask for September delivery. Paperwhite Narcissus, Roman Hyacinths, Daffodils, and Tulips are easy to grow. Trumpet Major, Golden Spur, Emperor, and Victoria are standard Daffodils. Murillo and Mon Tresor are semi-double Tulips which are always beautiful and are better than the single varieties in the playhouse, because they last longer. When the bulbs finish blooming do not throw them away. Put them under the bench and let them gradually harden up and the following September, plant them out-of-doors. We have a sheltered hillside in our woods which is golden with Daffodils every spring, and all of those bulbs first blossomed in our playhouse.

Planting Bulbs for Winter Bloom

IF THE drainage cracks in the bottoms of the flats let the soil fall through, put in a little straw, then two or three inches of soil, depending upon the size of your bulbs, and then a layer of sand. Stand the bulbs on this sand $1\frac{1}{2}$—2 inches apart and then fill the flat with fine soil, pressing it in smoothly. In the corner of each flat put a wooden label bearing the name of the bulbs and the date of planting and have this label tall enough to show above the top of the leaves or ashes used later for protection. If the ash frame is empty, level the ashes and stand your flats of bulbs so there will be at least 3 inches of ashes under them. Water them when they are planted and again, if necessary, but do not keep them as wet as the potted plants. When the freezing weather comes, gradually cover the flats with leaves or anthracite coal ashes whichever is more convenient. Early in November begin to watch the under side of the flats of Paperwhite Narcissus, Roman Hyacinths and Trumpet Major Daffodils. When the white roots come crowding through, it is time to move that flat into the playhouse. The stems will be longer if you keep the flats under the bench for a while, but if you care more about watching them grow than you do about stems, put them in their permanent place and you will be less apt to break the lengthening roots. The Tulips will be the last to blossom.

Early Columbine, Iris, and Primroses

WHEN the January thaw comes, dig up a clump of Columbine in your garden and plant it in your playhouse. It will be a fairylike blossom and the foliage also beautiful. Clumps of Primroses may be brought in too. Iris will also bloom, but requires too much space to be worth while. In trying garden favorites indoors I found it an excellent rule to bring in only those which blossom very early in the season. The late blooming plants require so much time that they flower only a little while before their out-of-doors brothers and do not repay the trouble.

Applying the Golden Rule

A LEAN-TO playhouse about 12 x 9 ft. may be worked on the scheme given in the above sketch. Remember that the Wallflowers and Mignonette are taller than the Primroses, Pansies, and Lettuce, and that your big Rose Geranium had better be planted near the open end of the bench (A) for it will need space. The Chrysanthemums, Calendulas, Snapdragons, Wallflowers, and Mignonette should be tied to stakes.

This plan is only suggestive, but if followed ought to give blossoms from October to May. Experience is the best teacher, however, so after following this suggestion the first year, you will then know how to change it for your individual conditions. B in the plan may seem a large space for potted plants but it must hold the Calendulas and Snapdragons waiting for the Chrysanthemums to finish and give them space; the little Lettuce plants for renewing your lettuce bed, and the flats of bulbs. The sturdy Ferns—Nephrolepis in its various forms, and the old standby, Aspidistra—should be given a place for their fresh green. If your house is brick or cement, English

Ivy makes a good background for plants, or you can cover a wooden house with a trellis and grow almost any vine you wish except a tropical or one which naturally sheds its leaves in the winter.

Plants should be growing in the benches about September first. Until the cold weather comes give them plenty of air and water them freely in the morning for the hot September sun dries a bench quickly, but *do not water in the afternoon* nor let the night catch them with wet foliage. Plants, like children, are better kept well than dosed too late. Watch the Calendulas, Mignonette, and Lettuce for a green worm which is just the color of the leaves and a voracious feeder. Pick it off and step on it, then it will not trouble you later. Toward spring, when your plants are large and your playhouse crowded, you may have green fly. Fumigate with aphis punk or tobacco dust.

Remember that each plant is a living thing and apply the golden rule. If the weather is dark and cloudy you would not want cold water thrown all over you, so in bad weather water the soil carefully and do not wet the foliage. Open the ventilator gradually. Don't throw it all open at once. If a cold draft blows on their heads, plants cannot move so they catch cold and you wonder why they have mildew and spotted foliage. If a bright, clear sun shines in, give them a good watering, foliage and all, and do not be afraid to use force. Put your finger over the end of the hose and send a strong stream under the foliage to clean it. Do this in the morning and if the sun goes under, tap the plants with your hand and shake off hanging drops so that late afternoon will find dry foliage. If in doubt, think of your own physical rules, remember your summer garden and strike a balance between the two.

Therefore, greetings to you, fellow gardener, start your playhouse and may fragrant blossoms reward you!

SOME "RICH RELATIVES" OF THE POPPY FAMILY

G. W. KERR

A Striking Group of Perennials and Annuals in Shades of Yellow, Orange, Cream, Rose, and Blue that Merit More Place in Our Gardens

NOT true Poppies, yet belonging to the same family, is a group of showy flowered plants that have lingered long in our gardens, yet even to-day are not exactly common.

THE WELSH POPPY, especially in its double form (Meconopsis cambrica fl. pl.) has deservedly attracted more attention of late years. The plant is of compact, neat habit, one foot in height, producing continually from May till October flowers of a rich orange-yellow color in great profusion. They are almost ball-like in form, thoroughly double, and average two inches in diameter; a dozen fully expanded flowers often being met with on an established plant. A partially shaded position best suits this first cousin to the Poppy. The single-flowered Welsh Poppy is also very showy but the flowers are rather lighter in color and not borne quite so profusely or so continuously. Both are true perennials and easily raised from seed or divisions.

M. WALLICHI—with very large rich blue flowers without any purple shading, succeeding best in a cool almost shady part of the rock garden where it looks extremely handsome—is also worth a trial. M. nepalensis should be grown in a similar position. Color, delicate golden yellow; flowers on tall stems and fully two inches across. Meconopsis will not endure a hot, dry soil, nor does it even like a dry atmosphere.

MATILIJA POPPY (Romneya Coulteri)

Native to southern California and Mexico this giant white Poppy with its beautiful, six-inch, silky blooms also thrives in colder sections of the country as, for instance, at Rochester, N. Y., where it has flourished for the matter of eight or more years (see above.) These plants have been protected in winter by a heavy covering of leaves

THE HORNED POPPY (Glaucium corniculatum) with rich orange-red flowers of large size, is extremely showy during midsummer. The plants attain a height of about 18 inches, but of rather straggly growth. They are very free-flowering, the petals dropping, however, very quickly, these being followed by a long, horn-like seed pod. This is more popular than Glaucium luteum which has yellow flowers. These are best managed as biennials, sowing the seed in early summer for the following summer's flowering. They are perfectly hardy and if the bed is not unduly disturbed, natural self-sown seedlings appear in great profusion each year.

THE CALIFORNIA POPPY (Eschscholtzia californica) with its beautifully cut, fern-like, glaucous foliage, even when not in bloom is a plant of much beauty; but if seed is planted early in the spring or in the fall this delightful annual will flower continuously the entire summer until killed by frosts. In the West and in sections where we have no very severe frosts it is a true perennial. The original is a brilliant yellow in color, but by selection and the exercise of great patience on the part of the seed grower and specialist, there are now quite a number of distinct and beautiful colors to be had. Of these Fire Flame is perhaps the brightest, the color being an intense reddish orange. There are also pink varieties; and White Pearl, cream

MEXICAN PRICKLY POPPY (Argemone mexicana)

Easily raised from seed sown where the plants are to stand, requiring a light soil and plenty of sun; height from one to two feet, flowers orange or lemon colored

white; Crocea, very deep yellow; a double flowered form of Crocea and other intermediate shades. In bright sunshine when the flowers are fully expanded they will average three inches across and the plants continue to bloom incessantly, irrespective of weather conditions.

The Mexican Poppy (Hunnemannia fumariaefolia) merits a place in every garden, although it is a little slow to start from seed and does not transplant well. A little attention in the early summer in getting the plants well started is amply repaid, however, as when the plants once attain flowering size they continue to present their yellow, poppy-like flowers in profusion until frost, which, unlike the Californian Poppy, do not close at night, and are therefore useful for indoor decoration, lasting for several days in water. The foliage is beautifully cut, somewhat resembling that of the Eschscholtzia, but the plants average about two feet in height. On the Western coast it is a perennial shrubby plant, but in the East it is treated as an annual. Start seed indoors in the spring, planting out in the open when the weather becomes warm. The best method is to sow two or three seeds in a $2\frac{1}{2}$ inch pot, afterward thinning out to the strongest plant.

The Matilija Poppy (Romneya Coulteri) or giant white Californian Tree Poppy is the only true shrub Poppy I have included in my list. When in full flower it forms a perfect picture, especially if its position is right, say with a background of conifers or evergreen shrubs. The immense white flowers of silk-like texture, beautifully crimped, with rich yellow stamens, and often six inches across, rival those of the single Peony. They are also sweetly fragrant and last for several days in a cut state. When planted in a well-drained sunny and sheltered position, the Matilija Poppy attains quite large proportions. Although it succeeds as far north as Philadelphia, it is not suitable for the Northern States. [We have seen it established in Westchester County, N. Y.; and in Highland Park, Rochester, N. Y., it is so much at home that it has usurped the whole bed. See page 419. It is given light protection in winter, however.—Ed.] On account of its root formation it does not transplant easily, but when fresh seed can be secured it is easily raised, although the seed is very slow in germinating, and the seedlings also do not make quick growth in the younger stages. Where the Romneya is apt to winter kill I can recommend the following method of protection. In late October or early November—according to location—cut all branches to about two feet from the ground, then encircle the plant with small meshed wire netting and fill up with dry leaves until the spring.

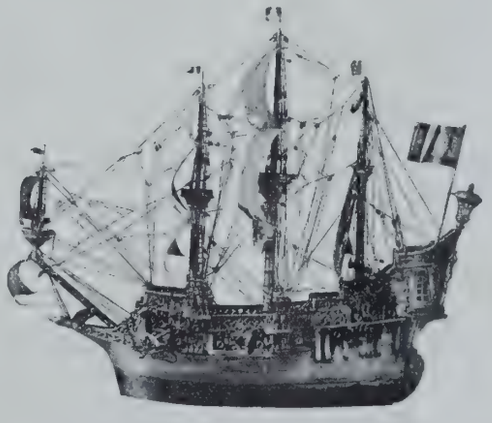
The Plume Poppy (Bocconia cordata) although its flowers do not in any way resemble those of the Poppy, is an interesting and beautiful subject for the hardy border. Well grown plants will average from 6 to 8 feet in height, and increase very rapidly. The leaves are almost maple-like, rich, glistening green on top, and white underneath, with whitish stems; every branch being surmounted with a large feathery, plumy mass of small flowers, without petals and in color creamy white. It is perfectly hardy, easily raised from seed or by root cuttings—too easily, perhaps, for some situations as it will spread rapidly in good soil.

National Garden Week for 1925 to be observed April 19th—25th

H. A. Strohmeyer, Photo.

Mirrors of the Garden

Of the many types of garden pool none perhaps holds more fascination than the circle laid like a great shining eye in the grass and on still days of midsummer reflecting near-by shapes and colors in perfect replica, suitable too by its sheer simplicity for either elaborate or informal surroundings as here at the home of Mr. Percival Roberts, Narberth, Pa., (above) or in the Ohio garden (below) designed by Messrs. Pitkin and Mott. As a finishing touch to such a pool is the exquisitely executed ship (at right) by Mr. Morgan Colt, a 16th century model, 4 ft. over-all, the hull of carved lead, sails of beaten copper with ornamental designs in brass, and rigging of bronze



AMONG OUR GARDEN NEIGHBORS

EVERY GARDEN MEANS A HOME

KEEPING STEP WITH THE TIMES

NEXT month THE GARDEN MAGAZINE will put into effect some changes designed to make it a still more useful and intimate member of the household than it has been in the past. Gardening has evolved along very definite lines since THE GARDEN MAGAZINE was started in 1905 when, as was then stated, it appeared as "the logical working out of the growing interest in the garden . . . as a delight and pursuit for the busy people in the world who find a fascination in the things of the soil."

The garden has become an integral part of the home life and has developed in America in a way that is distinct from gardening in any other country. It is a household occupation. Starting out with the feeling that the garden ought to be included as part of the home instead of being an isolated necessity, we have lived to see a changed point of view. The garden to-day expresses the home and might well adopt the slogan "No Home Without Its Garden."

The enormous impetus that suburban and rural home building has taken on since the War is inseparably associated with the expansion of the garden feeling and, in fact, may have been very largely a coöperating influence; and so THE GARDEN MAGAZINE, marching along with the times, will expand to the new appeal of the home builder.

This enlarged appeal will be accommodated by additional pages of text, and the distinctive and special place the magazine has always occupied in its relationships to the gardening and horticultural activities of the country will not be in any way jeopardized; but, on the other hand, we shall serve the all around interests of the owner of the garden and the home together as one indissoluble practical unit. A new type dress will be given and new features will be added while the old ones will be retained, and next month our friends will be greeted by the ampler title of GARDEN MAGAZINE & HOME BUILDER.

THE FUTURE BULB SUPPLY

CAN we or can we not get our "Dutch" bulbs from domestic sources when the European supply is cut off in another year? It would be worth a great deal if we could get a clear light on the whole befogged situation. Mrs. Howard's letter on page 423 raises some interesting thoughts. Her correspondent in California (quoted in the letter) seems to assert that the very existence of the things that are needed by the Eastern gardener is kept secret because there is no market. The Eastern trade, on the other hand, asserts either that it cannot get the desired supplies or that such samples as it has had do not meet accepted standards. Wherein lies the truth?

One concern in the East has entered very largely into the raising of Tulip bulbs. This is the Seabrook Farms, near Philadelphia, and recently a demonstration of their "American raised Tulips" was put into the Roseland Nurseries, New Brunswick, N. J., alongside the Lincoln Highway. We went to see them. The flower was all that could be desired and the trial had been made apparently under fair conditions, but we gather that these bulbs are merely grown on offsets or the first increase of the breaking up of a mother bulb, which, of course, is not demonstrating anything new, and Mr. Duffy says that in his garden in Illinois he has had Tulips growing on for forty years.

Here in our grounds at Garden City we have had Washington raised bulbs of several varieties of Narcissus from Mr. Lawler and they hold their own fully against the imported Holland stock grown alongside. They have now flowered for two years. We have also had very successful results this season with Spanish Iris in several varieties from the same source. All this is heartening as far as it goes. And for our part we care not a bit whence the bulbs come so long as the people can get them in quality and in variety as before. More power, indeed, to all those who are trying to meet the conditions.

On the other hand, some florists have reported that the Pacific Coast grown bulbs, Californian in particular, will not force in the same way as the European stock. That may be a matter of minor importance to the majority of our readers, but it is something to be reckoned with and would seem to indicate there is something different in the products of the two regions.

It may, or may not, be significant that in Holland, where bulb growing has been so greatly specialized for several generations the entire producing is confined within a narrow strip compassing not more than about two hundred square miles, and that the principals there engaged in the industry with knowledge, labor, capital, stock, and a market, have not succeeded in expanding the boundaries of this particular area, nor were they successful when they tried to establish a similar industry elsewhere in the Netherlands, nor in France, England, Denmark, Germany.

Now, assuming that the conditions are right and the stock can be raised of identical or equally serviceable quality here in American, the question is: Will the quantity be available to meet domestic demands as they have been supplied in the past? Can adequate supplies be developed in, shall we say, less than ten, or thirty, or fifty years? Who has any actual figures—facts? Everybody seems to be talking "up in the air." Certainly, on the published statements of those who are already trying to establish bulb growing enterprises there will be a sudden dearth of high quality, high priced varieties, for it takes long years to produce the new ones by hybridizing and raising the seedlings, testing them against accepted sorts and then increasing the stock to commercial quality. This has been going on for so long with the European producer that the constant succession of improved introductions comes year by year. We shall have to do without these or anything like them until a new start can be made, if indeed any one will take the trouble to do it. This effect of the quarantine does not make for horticultural progress, but rather quite otherwise.

Here is another instance. A large grower of Peonies recently made application to import a quantity of a well known standard red Peony for which there is demand but apparently an inadequate supply. Permission was refused by the Federal Horti-

cultural Board on the ground that it was at the present time offered in American catalogues. The grower then mentioned another variety of the same general type but not so good, and because it was not in domestic catalogues, permission was granted for him to import it. And so the silly farce goes on.

Is it a legitimate exercise of "quarantine" powers, which reacts in the line of encouraging the importation of discarded inferior varieties, not because the higher quality one is any more prone to disease but simply because in the past the American dealers have recognized its merits and have favored it as against a poor substitute? Why is it the business of the Federal Horticultural Board to determine which variety can be imported? What clause of the law is it that has been construed to give this Board such power? The direct result of quarantine is "downward progress" in our horticulture.

A PRIZE FOR THE BEST DAHLIA POEM

THROUGH the generosity of Mrs. Charles H. Stout, THE GARDEN MAGAZINE is privileged to announce the offer of a $50 cash prize to be awarded for a new and original poem on the Dahlia. Verse submitted in this competition must be of joyous mood in any lyric form, but not exceeding six stanzas in length. Competition closes October 1st, 1924, and all entries must reach THE GARDEN MAGAZINE not later than that day. Contestants may submit any number of entries, with the name and address of the author plainly marked on each one, addressing them to the Dahlia Poem Contest, care of THE GARDEN MAGAZINE, Garden City, N. Y.

Three men of letters, themselves poets of distinction, have generously consented to act as judges—Mr. Christopher Morley, Prof. John Erskine of Columbia University, and Mr. Frank Ernest Hill, one of the founders and editors of *The Measure*, a magazine of verse.

"FOR BETTER DELPHINIUMS"

THE peculiar individuality of the Larkspur as a garden flower fully justifies the greatly increased present-day interest in its improvement. Mr. Rea, who writes the very practical article on pages 407, 408 of this issue, has been a particularly successful Eastern grower of this flower which finds a place in every garden that makes any pretension of quality.

Along the Northern Pacific coast the Delphinium seems to have acquired a new home and is establishing itself with all the glamor and sentiment that has been woven around it of old in European gardens. Washington and Oregon are doing great things for the Delphinium.

A few enthusiasts are publishing at San Raphael, California, a semi-annual called *For Better Delphiniums* of which three numbers have appeared. It has sixteen pages about the size of this magazine, and contains individual reports by growers and raisers.

Postponements Seem Inevitable This Year! The American Gladiolus Society announces that the Gladiolus Show scheduled for the 8th, 9th, 10th of August at the American Museum of Natural History, 77th Street and Central Park West, New York City, is postponed until August 22nd, 23rd and 24th.

THE OPEN COLUMN

Readers' Interchange of Experience and Comment

Some Bulbs Do Grow in America

To the Editors of THE GARDEN MAGAZINE:

APROPOS of bulbs and previous letters in The Open Column a correspondent from California has written me, somewhat indignantly, that bulbs *can be* and *are* raised in California. My correspondent writes that her father has been growing them on the coast for twenty years and she "feels safe in saying that they can be grown as well if not better than in Holland."

This seems to me a matter of great interest to American gardeners in general who do not happen to live in California next door to a bulb farm (and several of us do not) and we are in grave danger of believing that bulb raising in California is mythical.

It seems to me also an important matter that "there are more bulbs grown here than the Eastern people think, but we have no market for them yet so do not offer them for sale. We have here about 150,000 Paper-whites (grandiflora); 100,000 Daffodils of different varieties; including Chinese Lilies and Soleil d'Or; Dutch, Spanish, and Japanese Iris; Lilium candidum; Godfrey Callas, and many other sorts in smaller lots. My father has several million Paper-whites and is the largest grower of the King Alfred Daffodils in America. He also has large quantities of other bulbs. George Lawler of Tacoma is our largest grower in the north."

My correspondent does not think Mr. Purdy's climate suitable for bulb growing (apropos of his article in the December, 1922, GARDEN MAGAZINE telling us what he had been able to discover on the subject) but at least Mr. Purdy tried, and moreover he gave us all the benefit of his researches, and I think we are properly grateful to him. And we cannot but remember that, during the years when we were sorely handicapped by the Quarantine, those other California growers preserved an almost unbroken silence on the subject when it would have been an enormous comfort to us to know that they could be raised *anywhere* in America.

Also, it is not enough to say that these Californian bulbs "will" bloom. I think that the editorial note in the April G. M. is almost the only definite information we have had that they *do* grow successfully, or should I say they *may* grow in view of my dealer's statement that his did not bloom?

It seems to me that the Californian growers would have no complaint of "no market," even though the Quarantine has been partly lifted, if they would give us the kind of helpful information that Mr. Purdy and Mr. Pudor do.—R. F. HOWARD, *Silver Hill, South Lincoln, Mass.*

Meeting the Home Maker Halfway

To the Editors of THE GARDEN MAGAZINE:

I AM pleased to note the proposed invasion of the "House" in the near future by The GARDEN MAGAZINE and am hoping the said house will be a small one—without a servant for the most part. No good magazine seems to have, as yet, covered this territory.—MRS. W. T. CLEMENTS, *Los Altos, Cal.*

Nearly 800 Blooms in Three Days!

To the Editors of THE GARDEN MAGAZINE:

MY HUSBAND is very proud of our Callirhoe (flowers crimson with white center) of which there are now three plants growing together—the stems reach 6 to 8 ft. long, flat on the ground, in a circle about the roots. As many as 240 blooms have appeared in one day, just about as many the day before and after. The Callirhoe blooms all summer, attracting a lot of attention. When mowing the lawn the stems are thrown back out of the way of the mower. A lot of seedlings have come up.—MRS. CORA JEWELL, *Darlington, Ind.*

Who Can Help This Garden Neighbor?

To the Editors of THE GARDEN MAGAZINE:

IN THE Open Column for April, there is a letter from Mrs. R. F. Howard, South Lincoln, Mass., concerning the hardy old-fashioned Clove Pink. When I was a child one of our neighbors had a large garden bordered with the pink variety. I have never seen the red or the white. For many years, since I have become interested in gardening, I have written to different seedsmen with the same result experienced by Mrs. Howard.

Do you think that I could buy some of the plants of the genuine Clove Pink from any of your readers?—MRS. E. A. SWAN, *462 Gramatan Ave., Mt. Vernon, N. Y.*

An Improved Grafting Paraffin

To the Editors of THE GARDEN MAGAZINE:

A GOOD deal of correspondence has come out of my notes in the GARDEN MAGAZINE on grafting, and you may wish to record my conclusions to date.

For tree grafting work I have found that melted parowax is the best material for this latitude. Farther south it remelts in the hot sun and in the mountain regions with much fluctuation in temperature range it sometimes flakes off from the graft. In order to obviate these defects I have been experimenting during the past year and find that raw pine gum known commercially as common turpentine is miscible in practically all proportions with all of the paraffins. It makes them more elastic, allows them to cling more closely and constitutes an improve-

ment all around. This raw pine gum may be mixed with the hard paraffins of high melting point in such a way as to make them adaptable for warm climates and it avoids the cracking and flaking of parowax.

As a matter of convenience, Messrs. Eimer and Amend, 3rd Ave. and 18th St., New York City, have agreed to keep in stock paraffins of both high and low melting points and also the raw pine gum (common turpentine) obtained directly from the pine trees. An additional advantage of this mixture consists in allowing us to use less expensive brushes for grafting work. The common 5c camel's hair brushes mounted on quills that are found in the drug stores may be utilized by simply putting a long stick in the open end of one of the quills thus allowing us to use the brush in the paraffin melter.

I have successfully grafted Peaches and Apples in December when employing this mixture.—Robert T. Morris, *114 East 54th Street, New York City.*

Sixty Days from Start to Finish

To the Editors of The Garden Magazine:

THE accompanying snapshots show results attained in sixty days in my small garden pool made last summer and a source of pleasure to both myself and my friends. The pool is concrete, 10 x 15 ft. and 2 ft. deep; the water being supplied from cistern and city.

The plants are hardy Nymphaeas— variety pulcherrima, one of the most beautiful—the flowers measure 8 inches in diameter, and are of a delightful blue color. I also have Water Lettuce (Pistia stratiotes); Water Chestnut (Trapa natans); Water Hyacinth (Eichhornia); Cat-tail (Typha latifolia); and Limnocharis nymphoides, a very rapid grower with bright yellow flowers.

A 10 x 15 FT. GARDEN POOL

Where Water Lettuce, Lilies, Water Hyacinth, and other aquatics took prompt and full possession, as this snapshot, made in the summer of 1923 just two months after planting, plainly shows. Garden of Mr. William L. Harned at Woodbridge, New Jersey

As I had twelve goldfish, mosquitoes never bothered me and I saw no signs of the wigglers that hatch into mosquitoes at any time. About the middle of October I took out the twelve original fish, placing them in aquariums in the house, and discovered an increase of at least seventy-five young fish.—Wm. L. Harned, *Woodbridge, N. J.*

Iris Mme. Chereau and Her Offspring

To the Editors of The Garden Magazine:

IN HIS "Speculating In Irises" (Garden Magazine for June), Sherman R. Duffy states: "Mme. Chereau seems capable of producing almost everything except herself—I have never secured a Mme. Chereau type of standard from Mme. Chereau seed."

At the time of reading I happened to have a seedling of Mme Chereau in bloom, which seemed to be very much like its parent, only, I think, more beautiful both in coloring and form.

I am sending a bud of this flower under separate cover for your inspection, and I wish that Mr. Duffy might see this as I would like very much to have his expert opinion.—H. N. Heflin, M. D., *Kewanee, Illinois.*

—I can't very well give Doctor Heflin an "expert opinion" because I can't qualify as an expert, being merely a toiler of the fourth estate who gardens for dissipation. My article was merely a matter of reporting personal experiences with such information as I have gleaned from a study of such Iris literature as I could command.

I received the bud of Doctor Heflin's seedling in a badly withered condition owing to the fact I was out of town, and can judge of the bloom only as to the form of its standards and falls which were still in shape to unfold and spread out for study. The stitching on the edges of the standards still was plainly evident. The falls seem to be better than those of Mme. Chereau in width and form, and the standards of greater width with fully as fine, if not finer frilling. As to the color, I could gain no idea as the bud had turned brown before I saw it, but so far as I can judge Doctor Heflin has a very good plicata, something on the order of Camelot and some of the Bliss seedlings of Chereau type. I do not know its height.

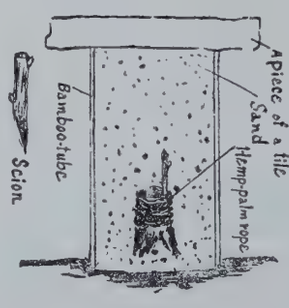
I did not mean to convey the impression that Mme. Chereau never reproduces herself, for that I don't know. I know she has never done so for me, and that I get about one plicata type in thirty or forty plants, sometimes not that high an average. I secured one out of twenty-six this year. Mine have invariably had the stained or washed standards in varying degrees of intensity. Plicatas do not produce plicatas, according to my experience; and plicatas are as likely to be found in pallida seedlings as plicata. Of the twenty-six which bloomed for me this year, the large majority were red-purples of mediocre quality, only one, a lighter Caprice of good form, being worth keeping. The one plicata was a miniature, a foot high, with small flowers, but I did not see the open bloom so don't know whether it was worth keeping or not. It was the smallest "tall Bearded Iris" I ever saw. I hope next year to get a chance to see Doctor Heflin's Iris as Kewanee and Ottawa are in the same neck of the woods in the days of the automobile.—Sherman R. Duffy, *Illinois.*

Grafting Tree-Peonies in Japan

To the Editors of The Garden Magazine:

I HAVE found an interesting clause "why grafting brings frequent disappointment" in Prof. A. P. Saunders's article "Tree-Peonies in My Garden and Yours" as I read over the June, 1923, number again. Grafting of the Tree-Peony with the offshoot is not difficult or disappointing to the Japanese.

The plants intended for stocks are obtained neither from seed nor dividing; the seedling is the old way and the only way for raising new varieties. The color of flowers is light and, as to be expected, petals of smaller number than their parents make their appearance after six years. The dividing is performed in fall (middle of September at Fuchisakimura; latitude is 34.5 degrees) with the offshoots grown from the parent. The strong and healthy offshoots are divided, then planted in a favorable position, well drained and loam soil. As the Tree-Peonies dislike moisture, too compact soil should be avoided since it retains water on the surface. As regards the improvement of the soil in a nursery, a heap of manure is desirable. The stock raised in soil richly manured is better than that grown in bad soil. Plants readily detect the difference. The ground is broken up before fall, and the soil and heap of manure mixed or deeply plowed together. New manure is very bad for the Tree-Peony. Therefore it is scattered over the surface of the ground in December or January for protection from frost after Bean-cake manuring under the surface of the ground between the stock.



THE JAPANESE METHOD OF CROWN GRAFTING

Sketch showing vertical section of bamboo tube with scion inserted in stock (at center) and firmly bound by hemp-palm rope. The tile across the top of the tube is left until mild weather in spring (see detailed description on opposite page)

JAPANESE ASTILBE

Though most commonly known as a florist's plant, the Astilbe is a perfectly hardy perennial and is easily grown in any well-made border. The Japanese variety shown here has feathery plumes of white very effective in the summer garden

The stocks should be planted in rows 1 foot asunder and 1 foot apart and should be grafted after four years or more.

Crown-grafting is the most common and the easiest to perform. The season for performing this operation is from the 20th to the 30th of September at the middle of Japan. It is treated in the following way:

1. Dig up the stock, heading down at 1½ inches from the root. A small notch or shoulder cut in the upper part will serve to rest the scion better on the stock. The scions are pieces of the healthy branch from 1 inch to 2 inches long. The upper half should have two or three eyes; the lower half is cut with a flat sloping slice-cut, which should begin opposite to an eye and end in a thin point. The nurserymen seem to prefer the scions that are taken from the top of the branches of last year's grafts.
2. The scion is inserted into the top of the stock between the bark and the wood as soon as the scion is prepared.
3. It should be tightly bound after the insertion of the scion with a ramie-hemp and section of the stock covered with an oil-paper. After this operation a hemp-palm rope is wrapped firmly on the point of junction.
4. Then plant in a prepared place and put a bamboo tube over as shown in the drawing on page 424. To keep the soil dry and warm put a piece of a tile above the Bamboo tube as a protection from rain.
5. When spring comes the tile may be taken away. The bamboo tube is left in place till the bud has grown 1 foot long.

Next year's spring brings recompense to the plant-lover for his labor in grafting a "gentle scion to the wildest stock." I will recommend the above-mentioned method to the garden neighbors in America as it is successful in our land—the Orient.—KANICHIRO YASHIRODA, *Japan.*

Can Iris Change Its Clothes?

To the Editors of THE GARDEN MAGAZINE:

ABOUT ten years ago my niece sent me from Mt. Kisco some Iris roots of a most enchanting lavender color. She had her stock from our old doctor who is long since dead and who lived at Mt. Kisco. He had his supply from his grandmother's garden which was situated on the Hudson near Ossining. I give you this history to show you that the plant is of old established stock. Ours has bloomed and we have enjoyed its beauty; but this summer every blossom has been a dark royal purple like those of a clump of that color about fifteen or more feet diagonally away. A white Iris about six feet away from the purple is also showing one or two purple blooms while the purple seems to be changing to white.

Why should these plants not be satisfied with their own clothes? One does not want all the Iris alike. I have just been looking at a clump of the lavender planted at least forty feet from a clump of the purple and diagonally opposite and in a situation where the bloom is later. These buds show many dark ones while some are light and I fancy will prove the right color. Please tell me why these old things should behave so and if there is any hope of being able to restore them? —CAMILLA L. EDWARDS, *Wainscott, L. I.*

Some Rare Spring Effects that Would Be Missed

To the Editors of THE GARDEN MAGAZINE:

HAVE you tried naturalizing Daffodils against a background of Forsythia? The yellow and white, or yellow trumpets loom their best. We have put down slips of Forsythia everywhere so when the robins arrive our corner looks as if spring had come in good earnest. In front of a group of slim pale Birches gleams Lucifer, "Star of the Morning," a brilliant Narcissus with orange-scarlet crown, and snowy perianth. How it glistens its nodding welcome on a dark morning in early spring! Everyone can have flowers in summer, but after the long hard winter is the time when a gay little flower lightens a body's heart. Combine it too with yellow Cowslips and sweet English Violets or Gold-laced Polyanthus.

Remember those nodding white plumes in the florists' windows around Eastertide in years gone by?—planted in the border and watered religiously they proved a welcome addition to a bunch of Hybrid-tea Rosebuds. After many years they are in the catalogues once more and I am promising myself a treat in Astilbe Peachblossom to take its place

beside the white variety I have saved since "befo' the war" (on flowers!). May we not have Tigridias ever again? I would like some more "forbidden fruit" after this year's taste. What can we ever find to replace Paper-white Narcissus, by the way? I have Snowdrops sallying forth on January 11th. Has any one tried Ixias, Anemones, Ranunculus, Calochortus, and Camassia in this vicinity? I am saving Anemones for spring planting to see if I can raise them in that way. Gladiolus Mrs. Francis King and Summer Hyacinth came over last year in the open ground all right.

Do you know how I get twice as much fun as most folks do out of the space in my bulb bed? I remove the top four inches of soil and fertilize heavily the carpet I have left. On this I plant first a row of Tulips and then, very closely, a row of Hyacinths, and so on, and put back the earth as a whole. Spring brings me a fragrant square of pink, white, yellow, and porcelain blue Hyacinths; and then after their blossoms are gone, along come my gay and radiant Darwin and Cottage Tulips against the green leaves of the Hyacinths, stately rosy Psyche, rare sun-kissed pink John Ruskin, crimson vase-shaped Elegans, demure Dawn, lavender Ewbank, apricot La Merveille, golden Fairy Queen, all colors except scarlet which are relegated as quarrelsome to the back of the house—but the children love them!

Last year I had a surprise in a dozen of a wonderful pale yellow Cottage Tulip shading lighter toward the edges as though a light burned at its heart. It is larger than Mrs. Moon and not so bright a yellow, and it does not have the tinge of scarlet found in Inglescombe Yellow. It resembled a Chrysanthemum Yellow Advance, which I have been so lucky as to winter here, but which I must slip this year as young plants have more vigor to survive our trying climate.

For my hardy border I have found another Dicentra the past year, the Plumy Bleeding-heart, daintier in flower and foliage and blooming at intervals till August if well watered. Near it I hope to plant the rare pink lily-like Amaryllis Halli. There is a small tree with weeping branches of pale pink blossoms that blend with the hazy distance of a spring landscape. I want this elusive beauty for my own, but whenever I have espied it, it could not be purchased, nor did the owners know its name.—C. A. Gardin, *Ridgewood, N. J.*

HAS ANY ONE GOT THESE IRISES?

NOT by any means the least useful work of the special flower societies is the elimination of the undesirable varieties, yet associated with it is the elimination of names of obsolete varieties so as to keep current lists really alive

The American Iris Society in the Iris section of "Standardized Plant Names" published all names thought to be in commerce, but the belief is growing that a number of these varieties are no longer to be found in cultivation, and are obsolete. If any reader of The Garden Magazine is growing any of the varieties listed below, please communicate with John C. Wister, President of the American Iris Society, Germantown, Philadelphia, Pa.:

Adelaide, Admiration, Agathe, Albion, Amelie, Argentea, Ariadne, Artaxerxes, Askabad, Aurea maculata, Avalanche. Beatrice (DB), Belgica, Belle Chatelaine, Bessie (not Fryer), Bismarck, Blue Sky, Bobs, Bossy. Carnot, Chamaeiris delicata, Chancellor, Charles Darwin, Clara, Clara Butt, Coltaire, Clotilde, Colenton, Commandant Betti, Commonwealth, Copperman, Corbeau. Die Fee, Doris. Edna Mercia, E. E. Adams, Effie, Enid, Ernest, Evelyn. Fries Morel, Fulgorie. Gedeon, Gervase, Gladys, Gold Coin, Golden Spire, Gorgeous (TB not DB), Grand Master, Gravereau, Guinevere. Harmonia, Henkler, Herald, Horace de Paris, Hybrida aurea. Imogene, Indiana, Incognita, Italica. La Grandesse, Lady Stump, Le Reve, Libaudi, Lord Rosse, Louis Van Meyer, Lutea maculata. Madcap, Madonna, Manon, Margaret, Mary, Memory, Mimung, Minerva (MB), Minor Beauty, Mme. de Baunne, Mme. Matta, Mme. Sonntag, Mrs. Naegli. Neala, Nefert, Newton, Nigra, Nimrod Nova, Aurea. Oom Paul, Oriel, Osiris. Perry Beauty, Perry Purity, Phaeton, Picotee, Porsenna, Prairie Beauty, Prairie Queen, Prince of Wales, Proserpine, Pumila alba (not the Bride). Queen (TB), Queen (DB), Queen Emma (not Florentina) Queen of the Dale. Racemosa, Reggie, Rolette, Rosabelle. Samboo, Sapphire, Sea Nymph, Semele, Senator Festelin, Siberienne, Sidonie (DB), Sterling, Sulphurea Pallida, Sweetheart. Telemaque, Topsy, Toussaint, Tristesse, Trocelestial. Uranus. Vestal (DB), Virgo. Waines. York (old Duke of York).

The following have been reported as in existence abroad, but apparently no plants can be found in U. S.:

Askabad, Die Fee, Enid, Golden Spire, Grand Master, Guinevere, Harmonia, Hybrida aurea, La Grandesse, Le Reve, Lutea maculata, Madonna, Margaret, Nefert, Osiris, Porsenna, Pumila alba, Queen of the Dale, Reggie, Samboo, Sapphire (Caparne), Semele, Topsy, Uranus, Virginia.

A LITTLE PORTABLE "GREENHOUSE" FOR HOME USE

ALBERT LOWENFELS

THERE are a lot of flower lovers I am sure, who, like myself, have often envied folks with greenhouses. We read the garden articles on how to "put cuttings or seedlings on the bench with bottom heat," but they always seem to be written for the man higher up.

I have tried so many ways of rooting cuttings: in cold and hot frames, in pots of sand, in jelly glasses with sand, etc., etc., but the results were never very satisfactory, until it struck me that one could have a little greenhouse at very slight expense.

Here is a simple, inexpensive affair that can be moved anywhere you want it—outside, or on a porch, or in any sunny window in the house. It is ideal for Dahlia and other soft-wood cuttings, slips of those beautiful Roses, rare Lilac or other shrubs in your friendly neighbors' gardens; for starting early Tomatoes or other seedlings, or early sproutings of the bulblets of rare Gladiolus so that you can get flowers the first year from them.

The accompanying picture shows an oat sprouter such as most poultry firms sell to sprout oats and so make green feed for chickens during the winter months. They are priced at around $7 to $10. This one had glass only in the door but I cut out the tin on the other three sides, replacing with glass and giving light on four sides. The cover is tin, and is removable and if more light still is wanted it too can be replaced by a piece of glass. However, I have found that light on the four sides is enough for cuttings. The bottom is the heating chamber, and a little kerosene lamp comes with the sprouter. Over that is a tin container that holds water. The top is the compartment for sprouting, which I use for a tray of sand to hold the cuttings.

MY HANDY LITTLE GREENHOUSE

Just an ordinary oat sprouter with glass replacing the usual tin sides (total cost about $10)

For some time I used the kerosene stove. But that simply heated the water above and generated vapor throughout rather than bottom heat to the cuttings, so now I have substituted a small electric light bulb (you can see the cord running into the box). This furnishes a gentle bottom heat to the sand tray above and a little pan of water next to the bulb supplies sufficient moisture. The cuttings can be watered once or twice a day, depending on atmospheric conditions, and on warm days the tin cover can be removed. If you stand a thermometer in the sand you can easily maintain an even steady temperature by adjusting ventilation, and so on.

GARDENING FOR THE BEGINNER

THE MONTH'S REMINDER—AUGUST

As to Time and Place: In gardening practice a date can only be approximated as seasons vary and local conditions will have some influence. Generally the latitude of forty degrees at sea level and a normal season is taken as standard. Roughly, the season advances or recedes fifteen miles a day, thus Albany would be about ten days later than New York (which is latitude 40). The latitude of Philadelphia is a week earlier. Also allow four days for each degree of latitude, for each five degrees of longitude, and for each four hundred feet of altitude. Latitude forty passes through Philadelphia, Pa.; Columbus, Ohio; Richmond, Indiana, Quincy, Ill.; Denver, Col.

How to Use This Guide: Suggestions as to the most important things of the month are given in this department so as to "remind" the gardener of the current duties. For routine details of such things reference should be made to standard handbooks and guides. It is impossible to make a complete manual of practice in each number of a periodical magazine. Yet timely articles will be found elsewhere in each issue, and references to back numbers will often solve the immediate question. Moreover, the editorial staff stands ready to help any reader with personal advice by mail. A self-addressed stamped envelope should be enclosed with the question.

Who Writes This: The advice and instruction in this department are the gleanings of many years experience in practical gardening matters by competent amateurs and others who have "been through the mill." The contributions are made from various sections of the country: for example, Mr. W. A. Currey contributes from Oregon; Mr. Theiss from Pennsylvania; Mr. Henry Gibson from Pennsylvania (formerly from New York); Mr. Sherman Duffy from Illinois; Mr. A. Kruhm from an extensive Eastern acquaintance; and, in addition, occasional notes from elsewhere and by the editorial staff and associated contributors of experience.

DOG DAYS bring a welcome lull in gardening activities, even the weeds being less rampant as the sun does its hottest stunts of the year. The chief work is watering and cultivating to keep the soil stirred and save the moisture. Soaking with the nozzle off the hose and not sprinkling is best.

August is the month of all months to get after weeds. Bindweed, or Old-man-of-the-Earth, is sometimes a particular pest. Keeping it cut down below the surface of the ground, at this season, is about the only way to get rid of it. When the garden is plowed, the long roots break into hundreds of pieces; it is not possible to find and remove all these pieces, and each piece of root sends up a top, establishing a new plant. It is impossible to kill these plants when the earth is moist but, during the hot August days, they can be smothered to death if their stems are cut well below the earth's surface.

Be Sure to:

1. Plant Evergreens
2. Set out new Strawberry beds
3. Bag Grapes to protect from rot
4. Sow cover crops wherever possible
5. Build a greenhouse for use this fall
6. Thin out fruits that have set thickly
7. Keep July planted crops growing fast
8. Make last plantings of succession crops
9. Order bulbs of all kinds for fall planting
10. Plant Madonna Lilies as soon as received
11. Prepare beds and borders for fall planting
12. Transplant and divide Irises, Oriental Poppy, and other perennials
13. Start Lettuce, Cauliflower, Pansies, Stocks, and other vegetables and flowers for fall and winter under glass

The gardener will find a little canvas bag fastened between the handles of his wheel cultivator very useful. Many weeds are so hardy that, after being jerked loose by the cultivator, they retain life for long periods, even while lying on the hot earth in the baking sun. Dock, Plantain, Twitch-grass, and other growths often live long enough after being torn up by a cultivator to be reëstablished by the next rain. Don't leave these growths in the garden. Pick them up as you cultivate them out and drop them into the bag.

If You Are Planting Daffodils This Fall

FALL catalogues are coming in, and it is time to make out bulb lists and get in early orders. Particular attention should be paid to the Daffodil and Narcissus list as they will be off the market except at advanced prices in another year, as they are barred for importation. The poeticus varieties, Barrii conspicuus, and some of the Leedsii, such as Mrs. Langtry, Duchess of Westminster, Evangeline, and White Lady flourish in this climate. The large trumpet Daffodils are short lived, but give a wonderful show. It is best to buy the cheaper varieties such as Golden Spur, Emperor, Victoria, and Mme. de Graaff in quantity for the most satisfactory results. Gloria Mundi in the short-cupped section seems to do well and gives a gorgeous show.

Prepare the bulb beds this month. Spade them deeply, pulverize the soil carefully, and mix in bonemeal—a liberal coating, say a coffee-cupful to a square yard. If the soil is heavy a mixture of sand will help. Use no stable manure.

Iris and Madonna Lilies

LITTLE planting remains to be done this month, the beautiful white fragrant Lily of the Madonna (Lilium candidum) being one of the few possible plantings. Iris will be delivered by dealers this month. Plant half in and half out of the soil, "as a duck sits in the water." Give the soil lime, a sprinkling like a light snow forked in. If the soil is heavy, add sand to lighten it, and if very heavy, it is best to plant the Iris on raised ridges, mulching with straw during the winter to prevent heaving.

If you did not divide your Iris in July, after they had finished blooming, better do it in August than later. In dividing my roots I endeavor to cut creeping stems to leave at least one eye on each side, as I have found that I am surer of having good blooms next season than if the big roots are cut leaving eyes only on one side. Before replanting, wash all the earth off the roots and then go over these roots carefully. You will find some of them plump, others hollow or flat and discolored. Cut such roots off close to the tubers before replanting.

"Blacks" of Larkspur

HOT weather, such as most sections of the country get in August, is very hard on Larkspur. The plants should have close attention, for, if severely hot weather is continuous, a fungus growth, quite destructive, often attacks the plants at the crown. When so attacked, apparently healthy and vigorous plants will gradually wilt. Such trouble may be checked at once, however, by spraying thoroughly with a lime and sulphur solution (of the same strength usually recommended for summer spraying). Also, spray the ground surrounding the plants. I have heard that a solution of bicarbonate of soda (i. e. ordinary baking soda), mixed in the proportion of one ounce of soda to a gallon of water, is also effective.

Keeping the Flower Border Gay

STAKE the later perennials such as the Asters. Spray Chrysanthemums and the annual Asters for black aphis which generally begins to appear about now. Early spraying with any good nicotine sulphate preparation will stop them in a hurry. Grasshoppers prove destructive in many gardens, eating Chrysanthemums to the stems. Give the plants a drenching with arsenate of lead and the hoppers will eat only one small meal.

Transplant perennials raised from seed to permanent quarters the last of the month so that their roots may be established before freezing. Sow seed of Violas and Pansies for early spring bloom next year to winter either in coldframe or under straw, pine needles, or autumn leaves in the open. Cut back old Pansies and Violas to start fresh growth from the roots for fall bloom and work a little bonemeal about the roots.

If you do not enjoy during August or September a second blooming of your Pearl Achillea it is because you have not handled this perennial to the best advantage. It has a fairly long blooming period and the dainty little button-like flowers on long stems are attractive for indoor use. To get the full value of this plant one should, as soon as the flowers start to turn brown, cut them off and then give the plant several good doses of fertilizer, in the way of liquid manure or sheep guano dug lightly into the soil. This will stimulate a new growth and a second crop of bloom. If you have saved seed of perennials which bloomed in the early season do not delay getting them started, for experience has shown me that the quicker I can get perennial seeds into the earth after they have ripened the better germination can be secured. I always endeavor to sow seed of Columbines, Delphinium, Hollyhocks, Lupines, and a host of others by the first week in August. I also do the same with Canterbury-bells, Sweet Williams, and other plants which I treat as biennials. By using a coldframe I find it is easier to regulate shade and ventilation and carry the young plants along until they are ready to put into their permanent place in the early fall.

Now and then I hear talk about saving the seed of such perennials as Michaelmas Daisies and Phlox, but my own experience has been that seedlings of such plants produce such a large percentage of useless varieties which are either inferior to, or only slightly different from, the parent plants. It seems more profitable to try one's skill on Delphiniums, Gaillardias, Pentstemon, and Pyrethrum, for seedlings of these frequently give varieties which are superior to the plants from which the seed came.

Flowers for the Winter Garden

IF YOU are looking for some bright little flower to grow in your greenhouse or winter garden during the coming winter, let me suggest a small sowing of Calendulas any time in August for November flowering. They are of the easiest cultivation. Give them rich soil and, if grown on benches in your conservatory, see that the bed is well drained. Sow the seed first in an unused coldframe, and pot the seedlings into small pots, carrying them along until about the middle of September when they should be planted in their permanent place in the greenhouse. Do not crowd the plants but place them about twelve inches apart. In selecting Calendula seed get a well established strain. Among the best is the "Ball" type. The variety generally listed as Orange King will be very good, if you want an orange-red shade; and for yellow flowers, Golden King. If you want flowers throughout the winter make a new sowing of seed each month. Some of these Calendulas when potted up do well on a heated sun-porch during the winter.

Among the Vegetables

TRANSPLANT Endive for fall salads. Dig under all old Pea and Bean vines for fertilizer.

The very latest Celery may yet be set. Your earliest will be ready to blanch. Blanching with earth at this season is not advisable because of the warmth of the earth. Drain tiles will work excellently. Boards do just as well. Celery blanched now should be in small quantities, so it can be used as blanched.

Onions should be ready for harvest this month. Bear in mind that white Onions are prone to rot, and if the season is wet, many will rot in the ground; eat the white ones first. Red and brown kinds will keep much longer; use them last. Also, whites are much milder than reds and browns. A good Onion scheme for the home garden is to raise some whites for early use and the others for winter storage.

If you happen to be short of Tomato plants your stand can readily be increased by cutting off some sturdy branches of already flourishing plants and rooting these. Set the branches slantingly so that two or more joints are in contact with the soil, and keep well moistened until they take root. They can then be set out as plants. A location that is partly shaded is the best place in which to root such cuttings.

Flowers formed on further growths of many sorts cannot possibly mature their crops before frost. Pinch off such shoots and throw the strength of the plant into the maturing of the crop already set. Tomatoes, Beans, Squashes, Pumpkins, and other plants should be treated this way as soon as they reach the dead line. It is time to begin on Tomatoes at once.

Unless you actually wish to secure seed, be sure that you do not allow your Asparagus plants to set seed. Strip off the pods as fast as they set. Asparagus seeds are a great nuisance in the garden. They produce "volunteer" plants that are most troublesome. Also, the production of seed necessarily takes vigor from the plants.

Bush and Tree Fruits

BLACK Raspberries will be ready to root about this time. New plants are made by the rooting of the pendant tips of the branches. Even if you have never handled Black-caps, it is easy to know when the plants are ready to root. They will tell you themselves. The slender tips begin to thicken and assume the appearance of snake heads. At this stage they are ready to root and are looking for soft ground. Keep the earth well cultivated about them and, to make certain of their rooting, cover each tip with earth. If you do not want the plants to root in this way, cut the pendent branches back before it is too late.

Peaches, Pears, and Apples will all be maturing in August. Their quality will depend largely upon how they are picked. Pears, oddly enough, should mostly be picked while still green. This is especially true of such varieties as Clapp Favorite, one of the earliest. It colors up beautifully if left on the tree, but at the same time it gets mushy at the heart. Pick these Pears three or four weeks before they are really ripe; put them away in a dark, cool place and eat them as they ripen. They will mellow slowly and become truly delicious. Some Apples have this same tendency. Yellow Transparent, if left to ripen on the tree, bursts open and becomes mealy and worthless.

Only the man who has his Peaches in his own yard can ever know what a really good Peach is like. Commercial Peaches must be picked while they are still hard and firm, while the home gardener allows his Peaches to hang on the tree until they are dead ripe. The increase in sweetness and general quality in the last day or two on the tree is amazing. Pick your Peach trees daily, culling out the dead ripe ones and letting every Peach hang until it is dead ripe. Then you will know what good Peaches are!

Of Budding and Borers

IN A late season, like the present one, buds may not be sufficiently matured for budding in July, but get them in as early as possible in August. Raffia of different colors is useful in budding to mark different varieties of buds of the same kind, as for example, several varieties of Cherries.

August is the time when the effect of the Apple tree borer's evil work becomes apparent. Theoretically, the borer makes a little heap of sawdust just below the entrance to his burrow. Actually, there is not always such visible evidence of borer work; and even an experienced fruit raiser may overlook a borer that is doing real harm to his trees. The inexperienced home gardener is quite likely to overlook these pests. If, at this time, your trees begin to look sick and the leaves wilt and turn yellow, hunt diligently for borers. If you find them, use your knife freely. Cut out all the dead bark covering their tunnels and scrape out all sawdust, etc., but be sure you leave some connecting lines of live bark to carry the sap up and down past the wounds. When you have cleaned the wounds, wax them over well, mound earth up over the wounds, cultivate about your trees, and water the soil long and thoroughly.

Corn borers, too, should be watched for in ears of Corn and killed. Individual slaughter seems to be the only way to check them. It will not be difficult to get every one in the corn patch.

Move Evergreens Now

THE earlier this month evergreens are moved the better. Every spring sees vast numbers of fall-moved plants that are dying, the reason being that the transplanting was not done soon enough to allow the plants to form new feeding roots and get proper hold of the soil. In handling evergreens, particularly conifers, remember this: *the roots of evergreens must never be exposed to wind.* Deciduous trees may be so exposed and pull through. It is sure death to expose an evergreen in this way. Nursery plants will be shipped with balls of earth on the roots. Water well after setting. If you dig plants for yourself, try to lift a ball of earth with each plant. Failing, wet the roots at once and wrap in wet burlap. Keep roots moist until they are planted, and then make sure the moisture supply is uninterrupted. A good mulch around every transplanted evergreen is the best insurance.

LITTLE GARDEN PICTURES

I. PLANTING THOUGHT FOR AUGUST

ONE of the finest little garden pictures of June may be started now: Madonna Lilies, pale blue Larkspur belladonna against a background of Dorothy Perkins Rose trained on a fence, trellis pole, or arch. The Larkspur seed may be sown now if no plants are in stock and will give plants which will bloom next year although they will be small.

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A practical wall covering that a damp cloth can keep clean

THE rooms of your home are not scenes in a play, with scenery that must be shifted for each new act. Home is where you live, relax, are comfortable and settled. Let's have the walls look as if you were going to stay awhile to enjoy their decorative beauty.

Of course, if the walls were to become soiled and dingy, if the children tried to improve the patterns with their fingerprints—you probably would get tired of such walls; who wouldn't? But with Sanitas Modern Wall Covering on the walls, all that is easily wiped off with a damp cloth and the colors kept clean and fresh.

Sanitas comes in styles for every room in the house. It is made on cloth, painted in durable oil colors, ready to hang. It does not fade, crack, tear, peel, or blister, and can be applied over any flat surface. On old walls, when the cracks are properly filled they cannot show through, and on new walls, Sanitas can be applied as soon as the plaster is dry.

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Vikings of the Ice

THE STORY OF THE WORLD'S GREATEST HUNT

By George Allan England

EACH spring from out the harbor of St. John's, Newfoundland, sails a little fleet of battered veterans of the ice, seeking amidst the polar floes the great seal herds of the North Atlantic. Manning these sturdy oak beamed hulls are men whose courage, hardihood, and skill are second to none in the world. These qualities and others as fine are needed, for to make but a few dollars these Vikings of the Ice must live through incredible hardships and face a variety of dangers from ice, fog, hunger, and the great implacable breath of the Arctic.

On the annual hunt occurs the greatest single slaughter of mammals in the world—the kill has risen nearly to 700,000, an incredible number. The sealers are a breed of men set apart, they have their own customs, their own standards, and their language is well-nigh incomprehensible without a glossary—as picturesque a body of hardy adventurers as ever existed.

No chronicle had ever been made of this Twentieth Century epic until George Allan England went along as one of the men, ate their food, lived their life and faced their dangers. He returned with the notes from which he has written this vigorous volume which is illustrated with a few of the many photographs which the author took, the first ever taken of the Newfoundland seal hunt as a whole.

Here is a bit taken from the narrative after the seal herd had been located which gives the flavor of the book better than could anything else.

"An old dog was butchered right under our bows, so that the ship nearly ran down both slain and slayer. The exploit raised a tumult of plaudits. As in a theatre gallery, masses of men clung to vantage points to watch every episode, every turn of technique. Talk about your Spanish bullfights! How tame by contrast with this! One man plunged into open water and turned back to the ship. His comrades unmercifully railed at him with jeers and hoots. Shamed, he dashed on again. Wild yells of approval pursued him as he ran harder than ever, water flying from every rag he wore. He landed his seal, and immediately went out again from the moving, crashing ship, not even waiting to change his clothes. Ere he got back again, his clothes were frozen stiff as boards.

"Miles on we pressed, a noisy impertinence ringed by vast white silences of majesty and beauty. Onward we killed, our crimson trail zigzagging through the ice. Intermittently carcasses were hurled over the rail, flopping into water that they reddened, or landing on ice with a sickening *squush*. The sky veiled itself with freezing clouds. Came flurries of snow and hail."

An intensely exciting and vigorous narrative with an incalculable historical value.

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Doubleday, Page & Company Garden City, New York

Beautiful, Fragrant, Hardy Peonies

The World's Best Varieties Are Now Available

During September we will be able to supply a large stock of fine healthy peonies in all the best varieties. These plants have been recently purchased by us from Mr. Wm. A. Peterson and will be supplied direct from the Peterson Nursery where they are now growing.

Peterson's Peonies have long been noted for their beauty, vigor, and floriferousness, coloring and fragrance. Those who know the high quality of Mr. Peterson's splendid plants will quickly avail themselves of this opportunity.

All roots furnished will be under our 3 for 1 guarantee (formerly made by Peterson Nursery and which we shall continue on exactly the same basis). Our unique guarantee states plainly—"We will replace with three, any plant blooming untrue to description."

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Growers of the Finest Varieties of Peonies and Iris

CHICAGO, ILL.

March 13, 1924.

I have this day sold to Northbrook Gardens, Glencoe, Illinois, P. L. Battey, Prop., all of my remaining stock of peonies, in addition to large quantities previously purchased, including over seventy-five varieties rating from 8.6 to 9.9 inclusive, also most of the best new unrated varieties, together with my complete mailing and customer lists, all cuts and forms for continuing my Master List of Peonies.

It is my understanding that Mr. Battey intends to maintain the same high quality of stock and service, which has been my practice for so many years.

(Signed) WM. A. PETERSON

Write for Your Copy of
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MASTER LIST OF PEONIES
(*Formerly issued by Peterson Nursery*)

It will assist you in the selection of these remarkable flowers, classifying as they do colors, seasonable blooming period and fully describing each kind and variety. We offer in addition to the varieties awarded the highest ballot, some fine ones as yet not generally known. Your copy may be had for the asking.

Two sizes of plants will be available.

Two eye balanced root division

This is a division with ample crown material, two well developed buds (or eyes) and a root system balancing the crown, giving a vigorous plant needing no coddling to produce strong, satisfactory growth

Three to five eye standard root division

The old time large division giving earlier maturity.

Our own large stock is grown in the deep black clay loam of Northern Illinois under ideal conditions for Peonies. Our place is located five miles due West of Glencoe on concrete road (twenty miles north of Chicago).

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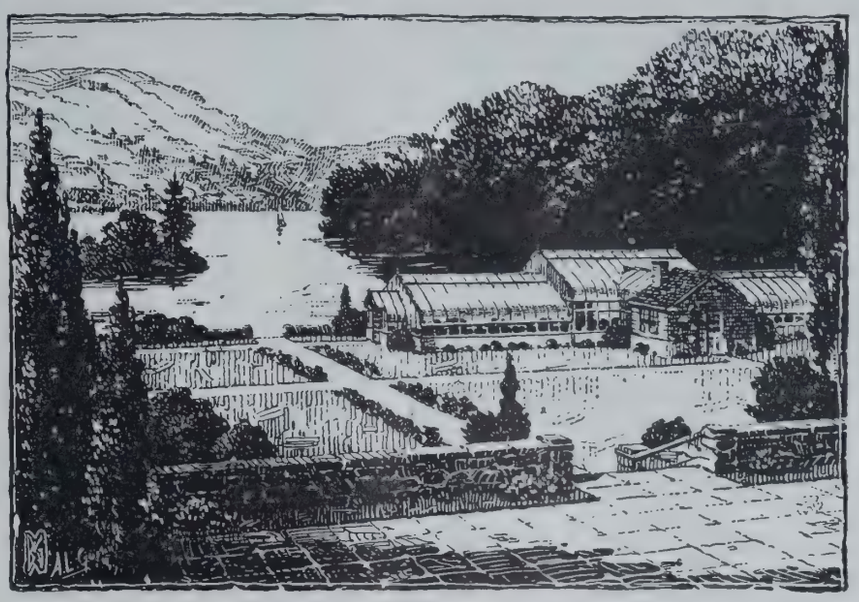
Glencoe, Ill. *P. L. Battey, Prop.*

Hitchings Greenhouses



What Therefore Does A Greenhouse Cost?

LIKE everything else, they cost more than they used to. But by the same token, their possessors seem to be getting more out of them than they formerly did.

The reason for that is because the ones who buy them nowadays, take a very personal interest in them, even to doing a good bit of the gardening—so to speak.

As a natural result, smaller houses are being built. This plant house and two wings, as shown above, is decidedly popular, while for the man who is inclined to put only from two to three thousand in a completed house, we have our snug little Sunshine Shop.

Frankly, we believe it is quite the best real value in greenhouses to-day.

You are welcome to a catalogue of our larger houses, or the special circular on the Sunshine Shop.

Always, our representatives are glad to come and talk things over.

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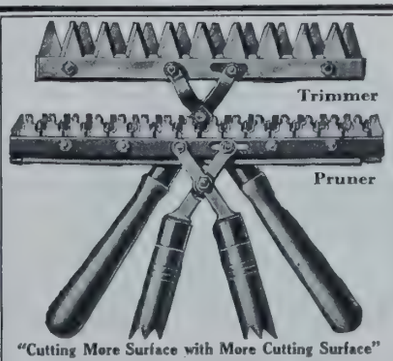

"Cutting More Surface with More Cutting Surface"

Great News for Hedge Owners:

The Simplicity Hedge Trimmer

is intended for use on new growth only. Greatest tool for trimming Privet, Barberry, etc. Cutting width, 12 inches with finest highgrade carbon steel blades. **Price, $5.00. West of Mississippi, $5.50.**

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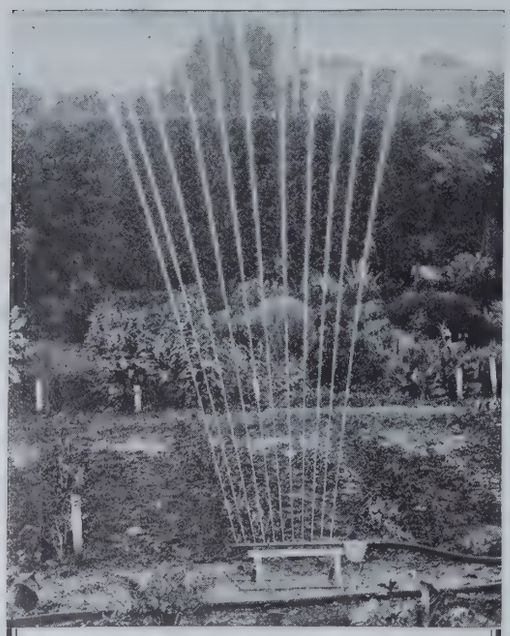
The greatest single forward step in pruning instruments. It cuts both opening and closing—every stroke counts. 31 fluted, keen-edged teeth evenly clip a 16 inch path through even hard-wooded hedges: Made of highest grade tempered carbon steel. **Price, $7.50. West of Mississippi, $8.00.**

Ask Your Dealer about the "Simplicity." If he cannot supply, order direct. Descriptive Circular on Request

Trenton Patent Mfg., Co. 112 Murray Street, Trenton, N. J.



Are Summer Droughts Cheating You?

Do you see crops wilt before your eyes or stand still waiting for rain that's problematic? Remember that the greater part of all plant substance is *water*, and lack of water means lack of, or greatly diminished crops.

There is *one sure* way to have a thrifty midsummer garden. Have on hand that handy rainmaker——

The Campbell Waterfan—

Rain When and Where You Want It!

This little five pound mechanical rain-maker will work wonders at the end of any garden hose backed with 15 pounds of pressure. Oscillating, it spreads an even, gentle rain, covering a ***rectangular surface*** 15 feet wide by 60 feet long, and ***leaving no nook or corner unwatered.*** Easily adjusted just by turning a little thumb screw.

No tools needed to make connection; easily moved about; direction of sprinkling, angle of sprinkling, evenness of water distribution and distance of watering desired under absolute control. Though the Waterfan weighs but 5 pounds, it is built so substantially that it will last for years. Nothing to get out of order. Always ready for thorough work.

Waterfan—Model No. 5

(Shown at work above)

Length, 21 inches. Weight, 5 pounds. Waters a rectangular area up to 15 x 60 feet. Price $15.00.

Delivered, charges prepaid, anywhere in U. S.

Satisfaction guaranteed or money refunded. Please write for descriptive circular. Address all inquiries and orders to

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Madonna Lilies

To Glorify Your June Garden!

These stately flowers, symbol of purity and devotion, whose regal grace and glistening whiteness gives a supreme distinction to any garden, are especially alluring against a background of blue Delphiniums.

Our bulbs are selected from the choicest collections in France—stalks 4 to 5 feet tall, often 10 to 15 magnificent blooms on a single stem.

To secure their beauty in a maximum degree of perfection for your June Garden, the bulbs must be *planted in September.* As these are all prize bulbs of exceptional size, stocks are necessarily limited. Delay may mean disappointment. Order now!

50¢ each, $4.50 a dozen, $35.00 per 100

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23 WEST 59th ST. NEW YORK CITY

Special IRISES *Offer*

Plant iris in July, August or September

Alcazar	$ .50
Edouard Michel	.75
El Dorado	.35
Iris King	.35
Isoline	.35
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A dozen fine bulbs, worth $5.90 for

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Write for complete list of 100 named varieties.

Unnamed Varieties For Mass Planting

We have a splendid stock of unnamed seedlings that we can supply in large quantities at very reasonable prices.

We also have a limited supply of William Mohr's famous "Conquistador" at $5.00 each.

Carl Salbach, *Grower*
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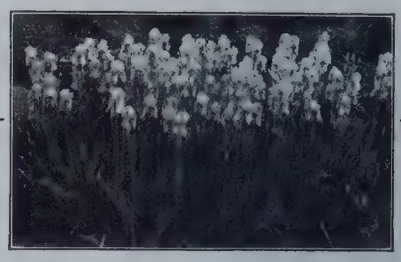

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A collection of wide color variation

Blue Jay—Intense clear blue of large size and elegant form.
Caprice. Deep rich reddish purple.
Eldorado. Yellowish bronze, shaded heliotrope.
E. L. Crandall. Pure white bordered deep blue.
Fro. A mixture of deep gold and brilliant chestnut brown.
Hiawatha. Pale lavender flushed rose.
Iroquois. Smoky lavender dotted brown and white.
Mrs. Allen Grey. Delicate rose lilac.
Nuee d'Orage. Grayish slaty blue.
Pauline. Rich pansy violet with orange beard. Fragrant, large and beautiful.
Pocahontas—Orchid type, pure white bordered with blue. Large and beautiful.
Wyomissing. Creamy white suffused delicate soft rose.

One strong root of each of the above twelve varieties for $2.50. POSTPAID.

Send for Complete Catalogue of Irises, Fruit Trees, Small Fruits, Fall the ideal time to plant.

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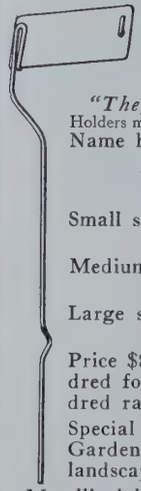

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Large size 42" long with 2"x4" label, for peonies, dahlias, shrubs, etc.

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Metallic ink for writing or printing names on label 25cts. a Bottle and specially made glass pen for use with ink 10 cts. each. Pen and ink not supplied except with order for labels.

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is ideal planting—Make your plans now.

Trees and Shrubs Hardy Garden Plants
Evergreens Roses—Vines
Small Fruits—Fruit Trees

EVERGREENS may be moved in August. Get these planted and follow with the deciduous plants later.

Our Catalogue will gladly be mailed free on request

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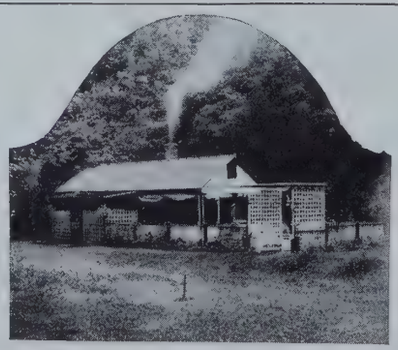
70 East 45th Street New York City



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Hodgson Houses are sturdy and weather-proof. The walls and roofs are made of selected red cedar, "the wood of the ages," backed with heavy fibre lining.

There are Hodgson Houses for every purpose. Send for beautifully illustrated catalog K.[4] It shows many actual photographs of Hodgson Houses. Also garages, dog kennels, poultry-houses, play houses, etc.

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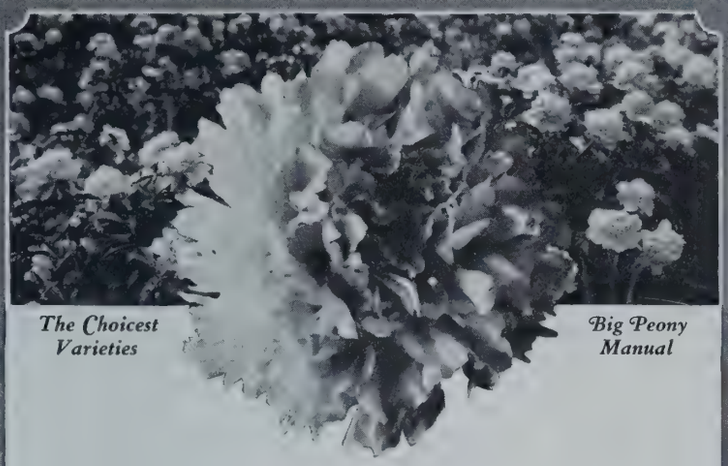


The Choicest Varieties *Big Peony Manual*

World's Most Beautiful Peonies

WE ARE carrying in stock this season, for fall sales, what we believe to be the largest stock in the world of the choicest of the world's most beautiful peonies.

Commencing in September we can supply in large well grown yearling plants, or in our usual large divisions, the following choice varieties:

Le Cygne; Solange; Lady Alex. Duff; La Fee; Tourangelle; Longfellow; Philippe Rivoire; Luetta Pfeiffer; President Wilson; Mme Jules Dessert; Kelway's Glorious; Therese; Frances Willard; Martha Bulloch; and many others.

Remember that Brand's peonies captured the three big prizes at the last National Show of the American Peony Society (two Gold Medals and the Silver Medal) it being the first time in the history of the Society that all three medals were awarded to one grower.

Brand's Big Peony Manual tells all about this wonderful choice stock, the most beautiful contributions in recent years to the peony world, and offers one of the largest lists of Japanese peonies carried in America. It also makes a special offer on that great Japanese peony "Fuyaja." Write for a copy.

Growers of Peonies over 50 Years

THE BRAND PEONY FARMS

Box 23 Faribault, Minn.

Schulz's Japanese Iris

NO garden is complete without a good display of Japanese Iris. Here is a real bargain list in variety and color to suit and charm the most discriminating flower lover:

Nasir Khel—Lavender or light purple falls flecked with white veined darker lavender, yellow blotch. Standard small, colored like falls, pistils lavender, 60c.

Phoebe Snow—White, large flower, large roundish falls with lemon yellow blotch following into veins. Standards, white, large and drooping with slight yellow streak in throat, 60c.

Purple Emperor—Beautiful dark purple flower. Falls large, roundish yellow throat; veined darker than general color. Standards purple with dark purple pistils and crests, 75c.

Sama—A pretty lavender flower. Falls have yellow blotch running into white veins. Standards small, erect, lavender with white veins. Pistils and crests white edged lavender, 75c.

Mutsu—Shade of pink splashed with white. Small erect pink and white standards, pistils and crests, 75c.

Hadaka—A beautiful large white flower, delicately tinged with a very light lavender, lemon yellow blotch. Standards small, erect slightly edged lavender. Pistils and crests white edged bluish lavender, 75c.

One each for $3.50 Postpaid

If you wish Iris, Peonies, Perennials, Shrubs, Trees or other ornamentals we have them.

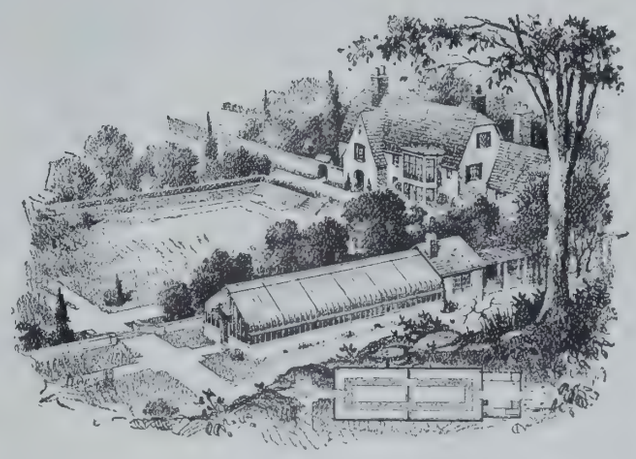
In Fact Everything for your Garden at Reasonable Prices

Write now for catalogue.

JACOB SCHULZ CO., Inc.

550 S. Fourth Ave. Louisville, Ky.

Glass Gardens



The New Home Coming What it Means to You

HOW the big movements going on around us, unconsciously influence us all.
For a time the autos took us away from our homes.
Always we were on the go—dinners out, dances, tourings, always road romping somewhere.
When the auto didn't claim us daytimes the movies did nights.
You and I don't care to admit it but our interest did flag in home things.

Then along comes the wondrous Radio, and brings us back home again, with an impelling interest for every member of the family.
We find ourselves looking at our homes with new eyes, and with it new interests develop.
The garden and our flowers come in for a renewed zest.
We even find ourselves planning for a greenhouse, so we can have our flower friends with us the entire year round.

We find the materials for one can be bought for so little as $1650 up.

It's great, this new home coming!
This awakening to the satisfying joys that means happier homes—how altogether wholesome it all is.
Let's get started with the greenhouse.
Send for our printed matter.

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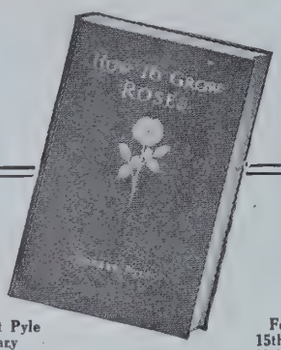

By Robert Pyle
Secretary
American Rose Society

For 1924
15th Edition
$2.00 Prepaid

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Every aspect of rose growing discussed authoritatively and entertainingly by one whose years of experience enable him to know just what information is of greatest value to the beginner and the advanced amateur grower.

Dr. Edmund M. Mills, President, Syracuse Rose Society wrote on May 5th, "I have received and read the new edition, 'How to Grow Roses.' If I could put only one rose book in the hands of a Rose Amateur, it would be 'How to Grow Roses.' It is practical and, at the same time poetical. I have a large rose library but it is the best illustration of 'multum in parvo' that I have."

Pleasurable vacation reading and an excellent addition to your library. Send check, cash, or money order ($2.00 for each copy, prepaid) direct to

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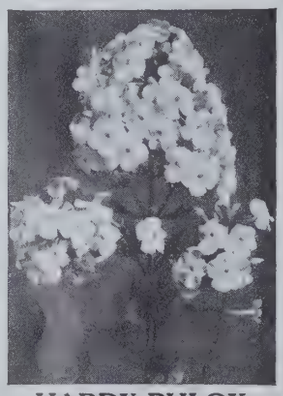

HARDY PHLOX

Are acknowledged the three seasons flower, there is not a month through the growing season when Phlox are not in bloom and they are fragrant too, so much so that the odor will penetrate all parts of the garden, particularly in the evening and early morning.

My list contains all the standards as well as a large list of fine Seedlings, over 300 varieties. Send for list.

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Beautiful New Shrubs

Philadelphus Virginal

The Large Flowered Syringa or Mock Orange

The splendid new Lemoine hybrid with clusters of pearly double white flowers two inches and more across; very fragrant and profuse bloomer. Will attain 8 feet in height. Plants 2-3 feet.

PHILADELPHUS ROSACE

Semi-dwarf but otherwise similar to the above. Slender twigs and bushy habit. Will attain 5 feet. Plants 18-24 inches.

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The drooping Golden Bell of moderate dwarf habit—ideal for banks of pools, etc. Plants 2-3 feet.

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By all odds the very best of the upright Golden Bells. The most floriferous, hardiest, and largest bloom. "Of all the Forsythias which have been grown in the Arnold Arboretum, this is the most beautiful." Plants 2-3 feet.

Price of any of above; each $1.10; 5 of a variety, $5.00; 10 of a variety, $9.50. Packing and postage free.

Grow these aristocrats and judge for yourself their great superiority over the common sorts.

Order now for Fall or Spring delivery as supply is limited.

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The Cole Nursery Company
"Everything that is good and hardy"
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THE Blister Beetle, or Black Aster Beetle, ranks second only to the rapacious Rose Bug in the destruction wrought to your favorite flowers. It appears in August and throughout the fall months. Though, perhaps, even more resistant than the Rose Bug, it cannot escape MELROSINE, which is

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Sole Manufacturers of Melrosine and Lotol
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The Recognized Standard Insecticide

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Vermine—Sure eradicator for worms and insects working in the soil.

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If not, we will ship direct on receipt of check or money order. Gallon $3.00—Quart $1.00

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Choice and Rare

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All the meritorious American and European Peonies including the new Lemoine novelties Alice Harding, Beaumarchais, Jocelyn, Mme. Escary, and Odalisque.

Send for complete list.

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The Glen Road Iris Gardens

SPECIALIZE IN RARE AND FINE VARIETIES OF BEARDED IRISES

Send for List

Grace Sturtevant, Prop.
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High Quality

BULBS

For Autumn Planting

Our Fall Bulb Catalogue sent on request

Stumpp & Walter Co

30-32 Barclay Street New York City

White Hybrid Delphiniums

A few tall growing White Hybrid Delphiniums scattered among the blue varieties will provide just that touch of contrast so needed to bring out the full beauty of these friendly folks of the hardy garden. My Garry-nee-Dule White Delphiniums are strong sturdy growers, large single flowers mostly pure white though rarely there is one with a black or brown "bee" in the center.

Price, 5 for $2.00, $4.00 per dozen, carriage paid. I have a few plants, specially selected for the large size of the flowers at 75c each, 3 for $2.00.

Choice selection of Blue Hybrid Delphiniums, 5 for $2.00, $4.00 per doz., or regular grade, $2.50 per doz., $15.00 per 100 delivered. Delivery in September.

My illustrated catalogue, "Hardy Plants for the Home Garden" gladly sent on request.

W. A. TOOLE *Garry-nee-Dule* ***Baraboo, Wis.***

GILSON Garden Tools

are great time- and labor-savers. We have developed tools for different jobs and soils, blade-, tooth-, hand- and wheel-cultivators, besides scratch-weeders, dandelion diggers, in short—

A Tool for Every Purpose

Write to-day for special booklet on cultivation, giving valuable hints on raising better, bigger crops through scientific cultivation. It's free—a postcard will do—and please mention G. M.

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A few dollars will buy seeds of the ***World's Choicest Plants.***

Hardy Alpine and Perennial Seeds from one of the largest and choicest collections in Britain, 1500 varieties, collected from the mountains and plains of the world, 15 cents per packet. Lists free. *Sample collection containing twelve distinct varieties, $1.00.* Thirty varieties, $2.00. *NOW is the time to sow them!*

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Peonies for Every Purpose

Almost "over night" Japanese and Single Peonies have become all the rage! Long recognized by connoisseurs as the most exquisite, they are just beginning to be appreciated by the rank and file of Peony hobbyists. We grow a score of absolutely the choicest in quantities to enable us to offer them at reasonable prices.

Please write for Free Catalogue. It offers hundreds of the very best varieties including the rare and new sorts of all classes and types. A Peony for Every Purpose.

AMERICAN ROSE & PLANT CO.
Producers of Plants that Grow and Bloom
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Opportunity!

Seldom repeats itself, but if by any chance you failed to buy Schling Quality Bulbs at our import prices of May and June, you will be glad to learn that we still can offer a limited number of the collections listed below *during the months of July and August only*, at prices far below those that will obtain later.

(NOTE—these are all top size, first quality bulbs in collections of named varieties—not mixed. Plant each variety separately and learn to appreciate its individual charm and beauty.)

100 **Single Early Tulips** in 10 named varieties	$3.75
100 **Double Early Tulips** in 10 named varieties	4.25
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100 **Daffodils,** double varieties	6.50
100 **Daffodils,** large trumpets (Jonquils)	6.00
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100 **Crocus,** in 4 colors	2.00
Total Value	$46.50

Special Offer The above collection of 1000 choice bulbs **$40.00**

* Bloom in May and June. All the rest bloom in April and May,—the crocus earliest of all, as soon as the snow melts.

TWO VERY SPECIAL BULB OFFERS

100 DARWIN TULIPS . . for only . . $3.00

Choicest, first-class bulbs, sure to bloom. Special Mixture made up especially for us from ten of the finest named varieties—not at all the ordinary field-grown mixture usually sold.

A $5 value for only $3, or if you prefer, 50 bulbs for $2.00

The Heralds of Spring

200 of these lovely Spring beauties—20 each of the following 10 named varieties for **$7.00**

Snowdrops (double); Snowdrops (single); Glory of the (Snow blue); Heavenly Blue Grape Hyacinths; White Grape Hyacinths; Blue Squills (Scilla sibirica); Blue Bells (Scilla campanulata); White Blue Bells, Wood Hyacinths (Scilla Nutans); Winter Aconites.

Schling's Bulbs

26 W. 59th Street, New York City

Every question about the garden is answered in

"The Complete Garden"

By Albert D. Taylor, M. S. A.

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Rain When You Want It

Try This In Your Garden

When we look over our files, we can't help feeling a bit proud of what the Skinner System of Irrigation has accomplished.

One of the letters is from Mr. John F. Mahr, of Guelph, Ontario, President of the Canadian Gladiolus Society, in which he tells us that the Skinner System was largely responsible for the prize winning gladioli which he showed at the American Gladiolus Society Exhibit at Rochester, N. Y., last year.

The Skinner System will work wonders in your vegetable and flower gardens. You can start with a small line, inexpensive, perfectly simple to install and operate. Try it out, and see what gardening means with "Rain when you want it." 50 foot line costs only $17.75. Covers a garden 50 feet square. Anyone can set it up in less than an hour, without the aid of a plumber.

We will gladly send you full and interesting information on request.

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TALL BEARDED IRIS

Do You Know Them?

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IRISLAWN GARDENS **Mountain Lakes, N. J.**

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Good books with artistic binding

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IRIS SPECIALIST

Rare and fine kinds of the Bearded, Crested, Spuria, Japanese and Siberian Iris. Catalogue on request. If interested send for special prices on large quantities.

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Sunnybrook Iris Gardens **Eatontown, N. J.**

ROSES

Beautiful and hardy; radiant pure in color; strong, healthy and vigorous plants, *guaranteed* two years old, field grown, wintered out of doors.

Send for Free Rose Book

Valuable information on roses, Lilacs, Peonies and shrubs. ALL OUR ROSES ARE GUARANTEED TRUE TO NAME, and *Budded* on the long-living *Rosa multiflora japonica.* We also have some wonderful Evergreens and Box Wood.

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Specialties:
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Is your name on our mailing list?

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This is Iris Planting Month

August is the best month to plant Iris.

Farr's is the best place to buy Iris, for I have more varieties of Iris and more iris plants than any other plantation I know; thirty acres devoted exclusively to Iris.

So complete is my collection and so satisfactory the service rendered that most of the nationally known landscape architects specify Farr's Iris.

Better Plants—by Farr

is the most comprehensive Iris catalogue published. Nearly 300 of the better foreign and American varieties are accurately described; each has a rating of 7 or better in the American Iris Society's Symposium.

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IRIS, *Susiana—Spanish & Dutch*

If you desire any of the above, orders must be placed at once. I. Susiana, each $1.00, per doz., $10.00. , Spanish & Dutch, assorted or one color, per doz. 75 cents.

DEAN IRIS GARDENS **Moneta, California**

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A Word About IRIS

Our catalogue of Oriental Flowering Trees (our great specialty) offers a small but select list of Iris Germanica. It includes the best new sorts as well as the choicer standard kinds. We grow no inferior varieties. Catalogue free on request.

A. E. Wohlert, *The Garden Nurseries*
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Our strong pot-grown plants set out in August and September will bear for you next spring. Plants are exceptionally good this year and we are offering them at reasonable prices. Howard 17, Dunlap, Sample and Success at $4.00 per 100; Progressive Everbearing at $5.00.

HARDY PERENNIALS. The best supply we ever grew will be ready for fall planting.

GEO. D. AIKEN, Putney, Vermont
"Grown in Vermont, it's Hardy"

Try This In Your Garden

A bed of **Oriental Poppies** and blue **Siberian Iris** divided by **Lemon Lilies.**

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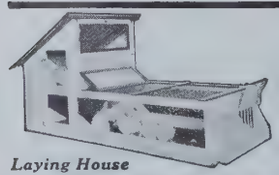
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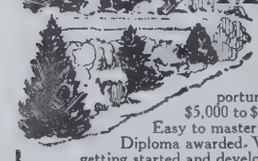

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See illustration June Garden Magazine, Page 293

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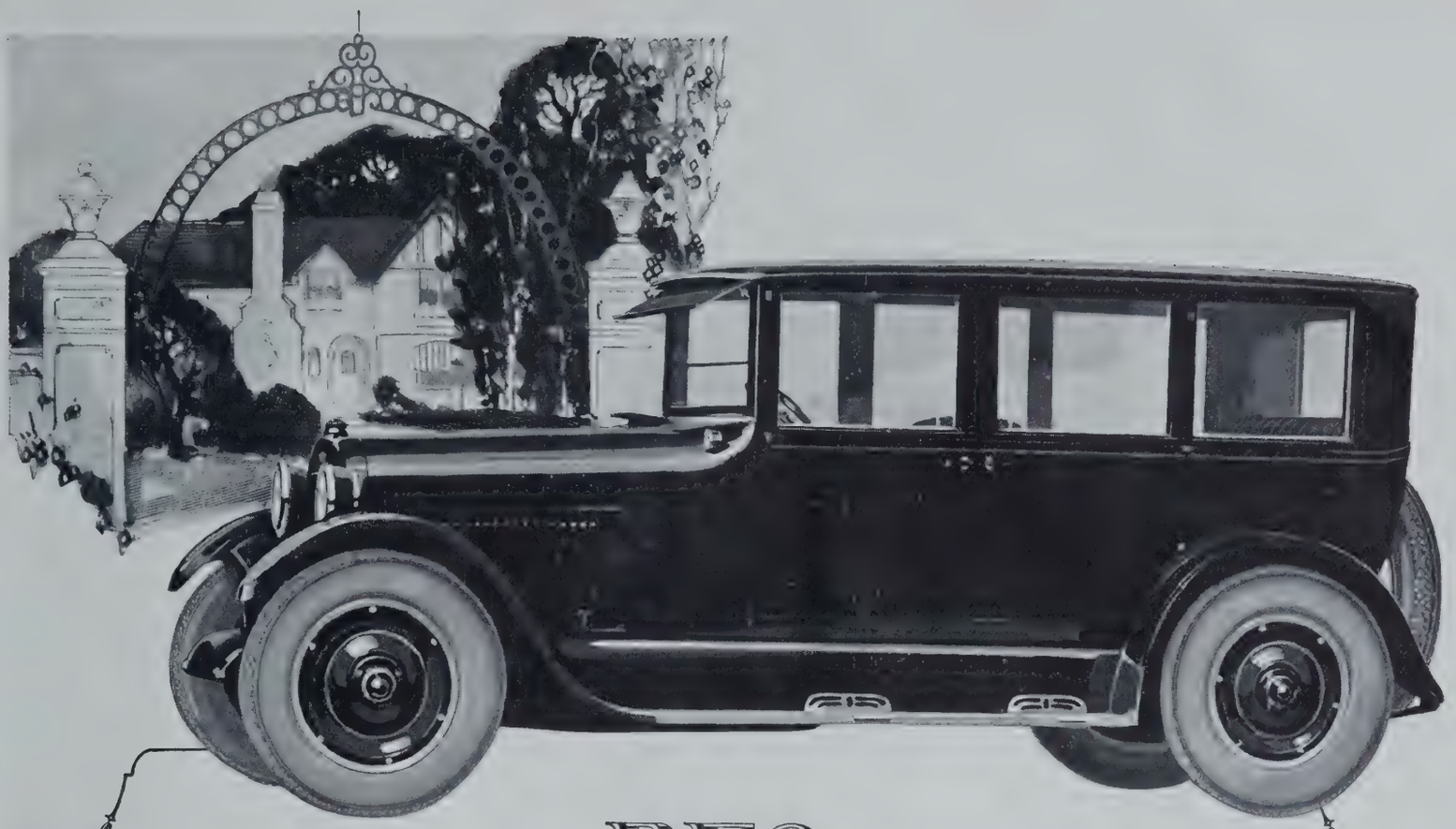

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Madonna Lilies are not particular as to location; they thrive equally well in sun or shade, but prefer partial shade to be at their best. Planted in conjunction with Delphinium (Hardy Larkspur) Bella Donna, truly beautiful effects are easily obtained.

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